

THE AMERICAN JOURNAL *of* PSYCHIATRY

**VOLUME 117
NUMBER 4
OCT. 1960**

Official Journal of
**THE AMERICAN
PSYCHIATRIC
ASSOCIATION**

1961 Annual Meeting, Morrison Hotel, Chicago, Ill. • May 8-May 12, 1961

Proven

in over five years of clinical use and
more than 750 published clinical studies

Effective

for relief of anxiety and tension

Outstandingly Safe

- simple dosage schedule produces rapid, reliable tranquilization without unpredictable excitation
- no cumulative effects, thus no need for difficult dosage readjustments
- does not produce ataxia, change in appetite or libido
- does not produce depression, Parkinson-like symptoms, jaundice or agranulocytosis
- does not impair mental efficiency or normal behavior

Miltown®

meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.

Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; or as MEPROTABS®—400 mg. unmarked, coated tablets.

QM-205B



WALLACE LABORATORIES / Cranbury, N. J.

®TRADE-MARK

ADOLF MEYER RESEARCH LECTURE: THE STUDY OF DEFECT. <i>Sir Aubrey Lewis</i>	289
BATTLEMENTS AND BRIDGES IN THE EAST. <i>Jules H. Masserman</i>	306
SCRUPULOSITY: RELIGION AND OBSSIVE COMPULSIVE BEHAVIOR IN CHILDREN. <i>Wayne M. Weisner, and Rev. Pius A. Riffel</i>	314
ADJUSTMENT OF EIGHTY DISCHARGED GERIATRIC-PSYCHIATRIC PATIENTS. <i>Morse P. Manson, and C. A. Engquist</i>	319
SOME PSYCHOLOGICAL ASPECTS OF ISOLATED ANTARCTIC LIVING. <i>Charles S. Mullin, Jr.</i>	323
BRIEF OBJECTIVE MEASURES FOR THE DETERMINATION OF MENTAL STATUS IN THE AGED. <i>Alvin I. Goldfarb, Robert L. Kahn, Max Pollack, and Arthur Peck</i>	326
PRESENT DAY CONCEPTS IN NURSING SERVICE ADMINISTRATION IN HOSPITALS FOR THE MENTALLY ILL. <i>Angie F. Waldrum, and G. L. Jones</i>	329
COMMUNITY PRESSURES AND A STATE HOSPITAL PROGRAM FOR CHILDREN. <i>Joseph J. Reidy</i>	336
THE "ADEQUATE RELAXATION INTERIM" FOLLOWING SUCCINYLCHOLINE ADMINISTRATION IN ELECTROSHOCK THERAPY. <i>David J. Impastato, Charles Buckman, Arthur Krell, Irving Pinsley, and Arthur S. Impastato</i>	342
THE CULTIVATION OF COMMUNITY MENTAL HYGIENE LEADERSHIP ABILITY AS A PART OF A PSYCHIATRIC RESIDENT'S TRAINING. <i>Howard M. Kern, and Caroline A. Chandler</i>	346
A LONGITUDINAL STUDY OF SCHIZOPHRENIA. <i>H. Klonoff, G. H. Hutton, G. H. Gundry, and T. T. Coulter</i>	348
CLINICAL NOTES:	
Effects of a Drug on the Body Odor of the Chronically Ill Mental Patient. <i>Carl Gouldman</i>	354
The Use of a New Ultra-Short-Acting Intravenous Anesthetic in Shock Therapy. <i>William Karliner, and Louis J. Padula</i>	355
Combined Pharmacofever Treatment with Imipramine (Tofranil) and Typhoid Vaccine in the Management of Depressive Conditions. <i>H. E. Lebmman</i>	356
A Comparison of Perphenazine, Proketazone, Nialamide and MO-482 in Chronic Schizophrenics. <i>John C. Saunders, Nantam J. Kotbari, Nathan S. Kline, and Joseph A. Griffen</i>	358
Atropine-Like Poisoning Due to Tranquilizing Agents. <i>Harbhajan Singh</i>	360
Clinical and Theoretical Observations on Phenelzine (Nardil) an Anti-Depressant Agent. <i>Myron F. Weiner, and Robert A. Cole</i>	361
A Comparative Controlled Study with Chlordiazepoxide. <i>Marshall E. Smith</i>	362
PRELIMINARY REPORTS:	
A Preliminary Report on the Use of Stelazine and Parnate in Chronic Regressed and Withdrawn Patients. <i>Harbhajan B. Singh, and Richard M. Free</i>	364
HISTORICAL NOTES:	
Georg Ernst Stahl. <i>Ernest Harms</i>	366
POEMS:	
Earl Bond	368
COMMENTS:	
Random Reflections	370
CORRESPONDENCE:	
Genetic Factors in Schizophrenia	373
Urinary Excretions	374
Dynamic Orientation	375
NEWS AND NOTES	376
BOOK REVIEWS	379



in the disturbed patient...

UNTROUBLED SLEEP

NOLUDAR induces quiet sleep, even in patients with organic psychosis who have severe sleep resistance. Nighttime distortions and fears usually disappear; pre-sleep disorientation and agitation are reduced. NOLUDAR does not modify the EEG of the waking patient nor significantly alter the tracings of physiologic sleep. Further, NOLUDAR does not depress abnormal brain-wave activity. To provide sound, restful sleep without sacrificing safety, without prolonging awakening time, without altering the natural sleep pattern, specify NOLUDAR, the non-barbiturate hypnotic.

NOLUDAR® 300

Brand of Methypylon

300-mg CAPSULES

NON-BARBITURATE HYPNOTIC

When a gentler hypnotic effect is desired, NOLUDAR 200 (200-mg tablets). For daytime sedation, NOLUDAR 50 (50-mg tablets).



ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley 10, New Jersey

THE AMERICAN JOURNAL OF PSYCHIATRY

VOLUME 117

OCTOBER 1960

No. 4

EDITOR

CLARENCE B. FARRAR, M.D., 216 St. Clair Avenue, West, Toronto 7, Ont.

BUSINESS MANAGER

AUSTIN M. DAVIES, Ph.B., 1270 Avenue of The Americas,
New York 20, New York

ASSOCIATE EDITORS

WILLIAM RUSH DUNTON, JR., M.D.

KARL M. BOWMAN, M.D.

FRANKLIN G. EBAUGH, M.D.

JOHN C. WHITEHORN, M.D.

STANLEY COBB, M.D.

PAUL H. HOCH, M.D.

S. SPAFFORD ACKERLY, M.D.

TITUS H. HARRIS, M.D.

LEO KANNER, M.D.

FRANCIS J. GERTY, M.D.

LAUREN H. SMITH, M.D.

KENNETH G. GRAY, M.D.

EDITORIAL ASSISTANTS

PATRICIA P. THOMPSON, B.A.

SYLVIA L. LAMBERT, B.A.

FORMER EDITORS, 1844-1931

AMARIAH BRIGHAM, M.D., Founder, 1844-1849

T. ROMEYN BECK, M.D.

JOHN P. GRAY, M.D.

G. ALDER BLUMER, M.D.

RICHARD DEWEY, M.D.

HENRY M. HURD, M.D.

EDWARD N. BRUSH, M.D.

Published by

THE AMERICAN PSYCHIATRIC ASSOCIATION

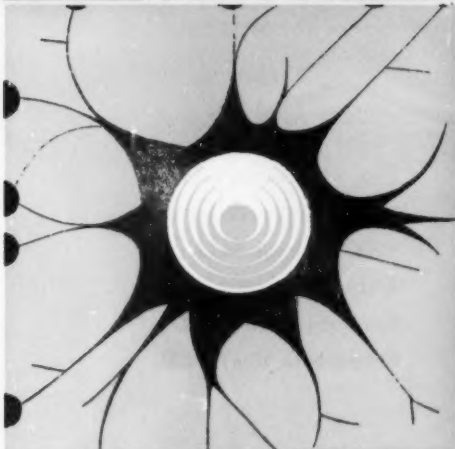
THE DARTMOUTH PRINTING COMPANY

HANOVER, N. H.



**whenever depression
complicates the picture**

Tofrānil[®]
brand of imipramine HCl



hastens recovery

Geigy

In many seemingly mild physical disorders an element of depression plays an insidious etiologic or complicating role.

Because of its efficacy as an antidepressant, coupled with its simplicity of usage, Tofrānil is admirably adapted to use in the home or office in these milder "depression-complicated" cases.

It is always wise to recognize that depression may be an underlying factor—that Tofrānil may speed recovery in "hypochondriasis"; in convalescence when recovery is inexplicably prolonged; in chronic illness with dejection; in the menopausal patient whose emotional disturbances resist hormone therapy; and in many other comparable situations in which latent depression may play a part.

Detailed Literature Available on Request

Tofrānil[®], brand of imipramine hydrochloride, tablets of 25 mg. Ampuls for intramuscular administration, 25 mg. in 2 cc. of solution.

Geigy, Ardsley, New York



160-60

THE AMERICAN PSYCHIATRIC ASSOCIATION

OFFICERS 1960-1961

President: ROBERT H. FELIX
Vice President: D. GRIFFITH MCKERRACHER
Secretary: C. H. HARDIN BRANCH

President-Elect: WALTER E. BARTON
Vice President: R. W. WAGGONER
Treasurer: ADDISON M. DUVAL

COUNCILLORS

For 3 years
 WILLIAM MALAMUD
 DANIEL BLAIN
 DAVID A. BOYD, JR.
 M. RALPH KAUFMAN

For 2 years
 FRANCIS J. GERTY
 PAUL HOCH
 CALVIN DRAYER
 ALDWYN STOKES

For 1 year
 HARRY C. SOLOMON
 LAWRENCE C. KOLB
 DANA L. FARNSWORTH
 ROBERT T. MORSE

EXECUTIVE COMMITTEE

ROBERT H. FELIX
 WALTER E. BARTON
 C. H. HARDIN BRANCH

ADDISON M. DUVAL
 WILLIAM MALAMUD
 ALDWYN B. STOKES

Ex-Officio
 D. GRIFFITH MCKERRACHER
 R. W. WAGGONER

ASSEMBLY OF DISTRICT BRANCHES

JOHN R. SAUNDERS
 (Speaker)

EDWARD G. BILLINGS
 (Speaker Elect)

LESTER E. SHAPIRO
 (Recorder)

MEDICAL DIRECTOR

MATHEW ROSS, 1700-18th Street, N. W., Washington 9, D. C.

EXECUTIVE ASSISTANT

AUSTIN M. DAVIES, 1270 Avenue of the Americas, New York 20, New York

CHAIRMEN OF COMMITTEES

CONSTITUTIONAL COMMITTEES

Arrangements
 HUGH T. CARMICHAEL
Board of Tellers
 EVELYN IVEY
Ethics
 MESROP TARUMIANZ
Membership
 DICK MCCOOL
Nominating
 FRANCIS J. BRACELAND

STANDING COMMITTEES (Internal Activities of the Association)

Budget
 JACK EWALT
Constitution and By-Laws
 HENRY A. DAVIDSON
House
 ZIGMOND LEBSOHN
*Increasing Responsibilities of
 the APA*
 HARVEY J. TOMPKINS
Program
 JOHN DONNELLY

STANDING COMMITTEES (Technical Aspects)

HARVEY J. TOMPKINS
 Coordinating Chairman
Aging
 EWALD W. BUSSE
History of Psychiatry
 J. SANBOURNE BOCKOVEN

Medical Education
 C. KNIGHT ALDRICH
Mental Deficiency
 GEORGE TARJAN
*Psychiatry of Childhood and
 Adolescence*
 REGINALD S. LOURIE
Public Health
 JAMES V. LOWRY
Rehabilitation
 BEN JAMIN SIMON
Research
 MILTON GREENBLATT
Therapy
 HENRIETTE R. KLEIN

STANDING COMMITTEES (Professional Standards)

HOWARD ROME
 Coordinating Chairman
*Liaison with American Academy
 of General Practice*
 ROBERT MATTHEWS
*Liaison with American Hospital
 Association*
 R. W. WAGGONER
Mental Hospitals
 JOSEPH BARRETT
Nomenclature and Statistics
 HENRY BRILL
Private Practice
 JOHN COTTON
Psychiatric Nursing
 WILLIAM S. HALL
Psychiatric Social Work
 NER LITTNER

Psychiatry and the Law
 KENNETH G. GRAY
Relations with Psychology
 JOEL S. HANDLER
*Standards and Policies of
 Hospitals and Clinics*
 STEWART GINSBERG

STANDING COMMITTEES (Community Aspects)

PAUL LEMKAU
 Coordinating Chairman
Academic Education
 C. DOUGLAS DARLING
Disaster and Civil Defense
 EDWARD J. KOLLAR
International Relations
 LOTHAR KALINOWSKY
Leisure Time and Its Uses
 ALEXANDER MARTIN
National Defense
 BENJAMIN H. BALSER
Occupational Psychiatry
 RALPH T. COLLINS
Preventive Psychiatry
 HENRY WORK
Public Information
 HENRY LAUGHLIN
Religion and Psychiatry
 EARL A. LOOMIS, JR.
Veterans
 SEYMOUR J. ROSENBERG

SPECIAL COMMITTEE
*Certification of Mental Hospital
 Administrators*
 WINFRED OVERHOLSER

AMERICAN JOURNAL OF PSYCHIATRY

INFORMATION FOR CONTRIBUTORS

Manuscripts—The *original* manuscripts of papers read at the annual meetings of the Association should be deposited with the Secretary during the meetings, or sent to the New York office promptly afterward. Do not deposit carbon copies.

Papers read at the annual meetings become the property of the Association. Not all papers read, however, can be published in the JOURNAL, and authors wishing to publish in other vehicles will first secure from the Editor the release of their manuscripts.

Papers will not be accepted for the annual program if they have been previously read at other meetings or if they have been already published.

Papers contributed during the year (not on the annual program) should be sent to the Editor, Dr. Clarence B. Farrar, 216 St. Clair Avenue, West, Toronto 7, Ontario, Canada.

Style—Manuscripts should be typewritten, double spaced, on one side of the paper. They must be prepared in conformity with the general style of The American Journal of Psychiatry. Retain a carbon copy of manuscript and duplicates of tables, figures, etc., for use should the originals be lost in the mails.

Multiple Authorship—The number of names listed as authors should be kept to a minimum, others collaborating being shown in a footnote.

Illustrations—Authors will be asked to meet printer's costs of reproducing illustrative material. Copy for illustrations cannot be accepted unless properly prepared for reproductions. Wherever possible, drawings and charts should be made with India ink for photographic reproduction as zinc etchings. Photographs for halftone reproduction should be glossy prints. Illustrations should be as small as possible without sacrificing important detail. Redrawing or preparing illustrations to make them suitable for photographic reproduction will be charged to author.

Authors' Corrections in Proofs—Corrections, additions or deletions made by authors are to be charged to them. These alterations are charged on a time basis at the rate of \$7.00 per hour. Proper editing of original manuscript is important to avoid the expense of correction.

Tables—Tables should be typed on separate sheets. Tables are much more expensive to set than text material and should be used only where necessary to clarify important points. Authors will be asked to defray cost of excessive tabular material.

References—References should be assembled according to author in a terminal bibliography, referred to in text by numbers in parentheses. Bibliographical material should be typed in accordance with the following style for journals and books respectively:

1. Vander Veer, A. H., and Reese, H. H.: *Am. J. Psychiat.*, **95**: 271, Sept. 1938.

2. Hess, W. R.: *Diencephalon*. New York: Grune & Stratton, 1954.

Abbreviations should conform to the style used in the Quarterly Cumulative Index Medicus.

The American Journal of Psychiatry, formerly The American Journal of Insanity, the official organ of The American Psychiatric Association, was founded in 1844. It is published monthly, the volumes beginning with the July number.

Articles appearing in this Journal do not necessarily reflect the official attitude of The American Psychiatric Association or of the Editorial Board.

The subscription rates are \$12.00 to the volume: Canadian subscriptions \$12.50; foreign subscriptions, \$13.00, including postage. Rates to medical students, junior and senior internes, residents in training during their first, second, or third training year, and also to graduate students in psychology, psychiatric social work, and psychiatric nursing, \$5.00 (Canada \$5.50). Single issues, \$1.50. Copyright 1960 by The American Psychiatric Association.

Office of Publication, 10 Allen St., P.O. Box 832, Hanover, N. H.

Business communications, remittances and subscriptions should be addressed to The American Psychiatric Association, 10 Allen St., P.O. Box 832, Hanover, N. H., or to 1270 Avenue of the Americas, New York 20, N. Y.

Editorial communications, books for review, and exchanges should be addressed to the Editor, Dr. Clarence B. Farrar, 216 St. Clair Avenue, West, Toronto 7, Ontario, Canada.

Second class postage paid at Hanover, New Hampshire.



The physician listens to a tense, nervous patient discuss her emotional problems. To help her, he prescribes Meprospan® (400 mg.), the only continuous-release form of meprobamate.



The patient takes one Meprospan-400 capsule at breakfast. She has been suffering from recurring states of anxiety which have no organic etiology.



She stays calm while on Meprospan, even under the pressure of busy, crowded supermarket shopping. And she is not likely to experience any autonomic side reactions, sleepiness or other discomfort.



She takes another capsule of Meprospan-400 with her evening meal. She has enjoyed sustained tranquilization all day—and has had no between-dose letdowns. Now she can enjoy sustained tranquilization all through the night.



Relaxed, alert, attentive... she is able to listen carefully to P.T.A. proposals. For Meprospan does not affect either her mental or her physical efficiency.



Peacefully asleep... she rests, undisturbed by nervousness or tension.* (Samples and literature on Meprospan available from Wallace Laboratories, Cranbury, N. J.)



***There IS an answer . . .
when COSTS are important!***

THE BROWN SCHOOLS for mentally retarded and emotionally disturbed persons from infancy to maturity*

- *Older retarded persons (21 yrs. and over)—\$230 monthly tuition;
- Retarded children (infancy to 21 yrs.)—\$230 to \$280 monthly tuition;
- Emotionally disturbed children and adolescents (8-18 yrs.)—\$280 monthly tuition plus \$100 per month individual therapy.

For a detailed catalogue describing The Brown Schools in both text and photographs to:

*Mrs. Nova Lee Dearing, Registrar
Dept. C-O • P. O. Box 4008
Austin 51, Texas*

Paul L. White, M. D., Medical and Psychiatric Director

The Brown Schools

Austin and San Marcos, Texas • Founded in 1940 • Six separate resident centers

removes the bars between patient and psychiatrist



Trilafon[®]
perphenazine helps avoid apathy of sedation
controls tension while maintaining a clear sensorium



Schering

Trilafon^{perphenazine} helps the psychotic function more effectively—shortens hospitalization¹

Responsive psychotic patients on TRILAFON exhibit "...dramatic gaining of insight and appropriate judgement...clarity of thought and a clear understanding..."²

Available as Tablets, Injection, Liquid Concentrate. Consult Schering literature for indications, dosage and administration, precautions and contraindications.

References: (1) Ayd, F. J., Jr.: *New England J. Med.* 261:172, 1959. (2) Morgan, D. R., and van Leent, J. P.: *M. J. Australia* 45:696, 1958.

S-416



The gift of confidence in epilepsy. In the enchanted moment of childhood, happiness is a world of friends, plans, faces, teams . . . Time was when the penalty of being "different" was to be denied these joys of belonging, never to know the simplest and sweetest pleasures of growing up. Now, with these five distinguished anticonvulsants you can take your patients from early childhood to productive maturity—steadily, usefully, confidently.



Anticonvulsants by Abbott. **PEGANONE®** (Ethotoin, Abbott)—A hydantoin of exceptionally low toxicity. Indicated for *grand mal* and psychomotor seizures. **PHENURONE®** (Phenacemide, Abbott)—Often effective when other agents fail. For *grand mal*, *petit mal*, psychomotor and mixed seizures. **GEMONIL®** (Metharbital, Abbott)—Relatively non-toxic. For *grand mal*, *petit mal*, myoclonic and mixed seizures symptomatic of organic brain damage. **TRIDIONE®** (Trimethadione, Abbott) **PARADIONE®** (Paramethadione, Abbott)—Homologous agents. Generally afford symptomatic control of *petit mal*, myoclonic and akinetic seizures.



faster therapeutic response



REITER MODEL SOS PROVIDES FOR ALL THE FOLLOWING TECHNIQUES:

CONVULSIVE THERAPY (maximum convulsive and therapeutic efficiency) • NON-CONVULSIVE THERAPIES • ELECTRO-SLEEP THERAPY • FOCAL TREATMENT (unilateral and bilateral) • MONO-POLAR TREATMENT (non-convulsive or convulsive) • BARBITURATE COMA (and other respiratory problems) • MILD SEDAC (without sedation) • DEEP SEDAC THERAPY (with sedation) • PRE-CONVULSIVE SEDAC (for anxious patients who resist EST) • POST-CONVULSIVE SEDAC (for deep sleep) • NEUROLOGICAL CONDITIONS • MEASUREMENT PROCEDURES

Model SOS contains the Reiter unidirectional currents and three SedAc ranges as part of the single selector control. Other models available are: 1. Model S containing only the unidirectional currents; 2. SedAc (attachment) to be used with Model S; 3. SedAc (self-powered) an independent instrument.

REUBEN REITER, Sc.D.

with . . .



REITER MODEL SOS

*the one instrument combining the strongest
convulsive currents with powerful yet
gentle sedative currents*

A SINGLE CALIBRATED KNOB CONTROLS ENTIRE TREATMENT

- exceptionally fast clinical therapeutic response
- most efficient convulsive currents result in minimal side effects — apnea, thrust, confusion and treatment-generated anxiety are negligible
- patients are quickly clear and bright following treatment
- difficult cases have responded to SedAc deep sleep therapy — powerful, deep, effective yet safe treatments are easily applied
- SedAc current establishes better transference — patients become communicative
- aversion to EST minimized by gentle SedAc current
- one knob, with safety lock, controls convulsive and sedative currents
- multiple units used in many hospitals for simultaneous deep sleep treatments — with same doctor-nurse team required for one machine
- clinical studies have evaluated a new measurement procedure to determine areas of cerebral damage and the degree of malfunction

Only Reiter, the original unidirectional current electrostimulators, are authentically backed by extensive clinical experience with over 200 references in literature and text-books.

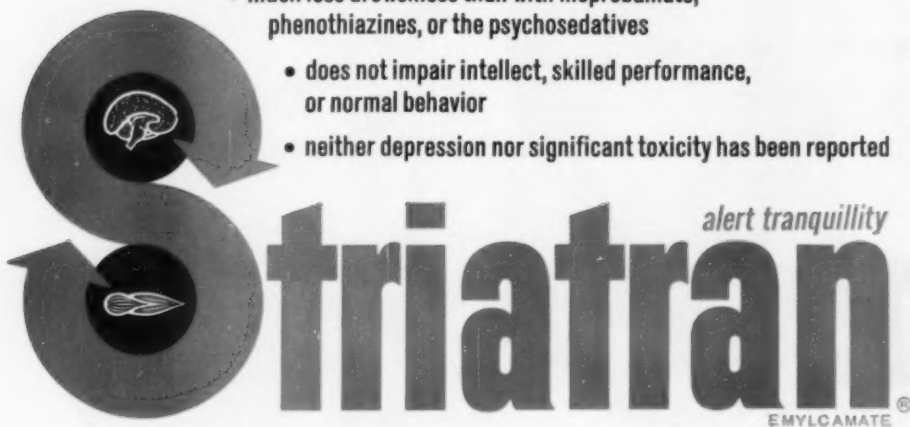
64 WEST 48th STREET, NEW YORK 36, N. Y.

alert tranquillity



a new, improved, more potent relaxant for anxiety and tension

- effective in half the dosage required with meprobamate
- much less drowsiness than with meprobamate, phenothiazines, or the psychosedatives
- does not impair intellect, skilled performance, or normal behavior
- neither depression nor significant toxicity has been reported



- a familiar spectrum of antianxiety and muscle-relaxant activity
- no new or unusual effects—such as ataxia or excessive weight gain
- may be used in full therapeutic dosage even in geriatric or debilitated patients
- no cumulative effect
- simple, uncomplicated dosage, providing a wide margin of safety for office use

STRIATRAN is indicated in anxiety and tension, occurring alone or in association with a variety of clinical conditions.

Adult Dosage: One tablet three times daily, preferably just before meals. In insomnia due to emotional tension, an additional tablet at bedtime usually affords sufficient relaxation to permit natural sleep.

Supply: 200 mg. tablets, coated pink, bottles of 100.

While no absolute contraindications have been found for Striatran in full recommended dosage, the usual precautions and observations for new drugs are advised.

For additional information, write Professional Services,
Merck Sharp & Dohme, West Point, Pa.



MERCK SHARP & DOHME, DIVISION OF MERCK & CO., INC., WEST POINT, PA.

STRIATRAN IS A TRADEMARK OF MERCK & CO., INC.

TESTED

in numerous mental conditions

RATED EFFECTIVE

by the medical and nursing staff

APPRECIATED

by the patient

Dartal[®]

dihydrochloride

brand of thiopropazate dihydrochloride

SEARLE

In the institutionalized burned-out schizophrenic patient response to Dartal was impressive; in more than 50 per cent of the patients¹ the results were favorable.

In another study² of chronic mentally disturbed patients with hyperactivity and agitation as prominent symptoms, approximately 50 per cent were improved with Dartal. While the majority had schizophrenia, the group also included patients with chronic brain syndrome, manic-depressive reaction, involutional psychoses and psychoneuroses.

Dartal was considered extremely useful in certain patients with neurosis and emotional hyperactivity. Many patients did much better on Dartal³ than on previous medication.

Behavior in the ward was significantly improved⁴ with Dartal when evaluated at the end of two and eight weeks, as found in a carefully controlled study of fifty-four patients with chronic schizophrenia.

All these studies and previous ones^{5,6} emphasize the relative freedom from serious side actions.

References:

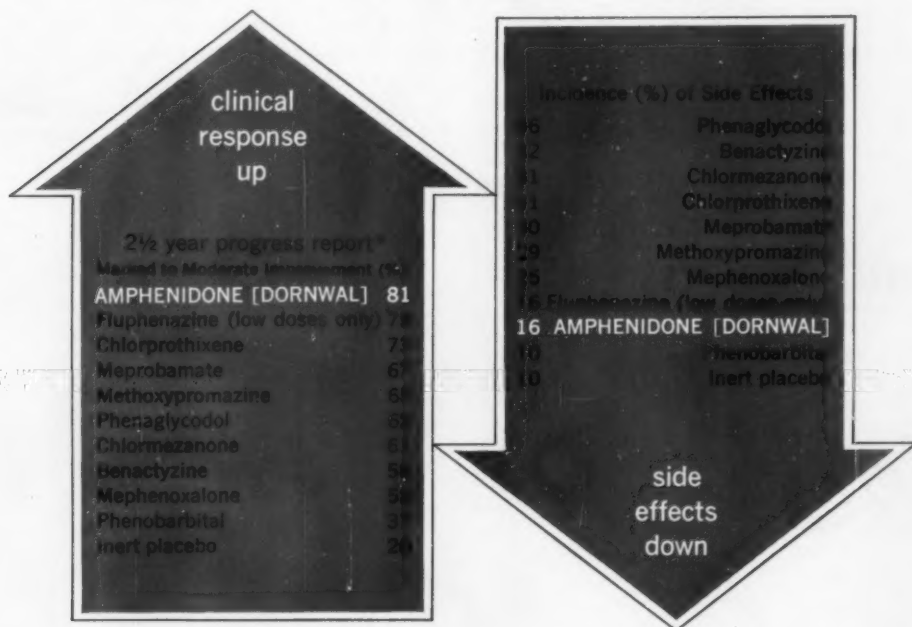
- Personal communications to the Division of Clinical Research from: (1) Sidney Cohen, M.D., Chairman, Research Committee Neuropsychiatric Hospital, Veterans Administration Center, Los Angeles 25, California. (2) Danville (Pennsylvania) State Hospital, study in progress. (3) Eastern State Hospital, Vineta, Oklahoma, Clinical Director G. W. Kleinschmidt, M.D.; experimental work conducted by Attila Nagy, M.D. (4) Hamilton, M.; Smith, A. L. G.; Lapidus, H. E., and Cadogan, E. P.: A Controlled Trial of Thiopropazate Dihydrochloride (Dartalan), Chlorpromazine and Occupational Therapy in Chronic Schizophrenics, *J. Ment. Sc.* 106:40 (Jan.) 1960. (5) Ferrand, P. T.: *Minnesota Med.* 47:853 (Dec.) 1958. 6. Edison, C. B., and Samuels, A. S.: *Arch. Neurol. & Psychiat.* 80: 481 (Oct.) 1958.

a nonsedative tranquilizer that works

DORNWAL[®]

brand of amphenidone

for greater therapeutic effectiveness in anxiety and tension with lowest incidence of side effects for the outpatient



Indications: Anxiety and tension states, tension headaches, pre- and post-operative apprehension, anxiety coexistent with gastrointestinal, dermatologic, gynecologic, cardiovascular and other functional or organic disorders, behavior disorders in children associated with anxiety and tension.

Dose: Adults, one or two 200 mg. tablets three times a day. Children, 6 to 16, one or two 100 mg. tablets two times a day. Administration limited to three months duration.

Supplied: 200 mg. yellow scored tablets, and 100 mg. pink tablets, each in bottles of 100 and 500.

*Nodine, J. H.; Bodi, T.; Slap, J.; Levy, H. A., and Siegler, P. E.: Human bioassay of tranquilizers in psychosomatic disorders, Scientific Exhibit, American Medical Association Annual Meeting, Miami Beach, Florida, June 13-17, 1960.

Maltbie Laboratories Division, Wallace & Tiernan Incorporated, Belleville 9, N. J.



Compazine[®] brand of prochlorperazine

can penetrate the mental and physical apathy of senile patients so that they become more alert and cooperative. With 'Compazine', these patients are usually less inclined to incessant complaining. As they begin to socialize and to take an interest in their personal appearance and environment, the problems of management are greatly eased.

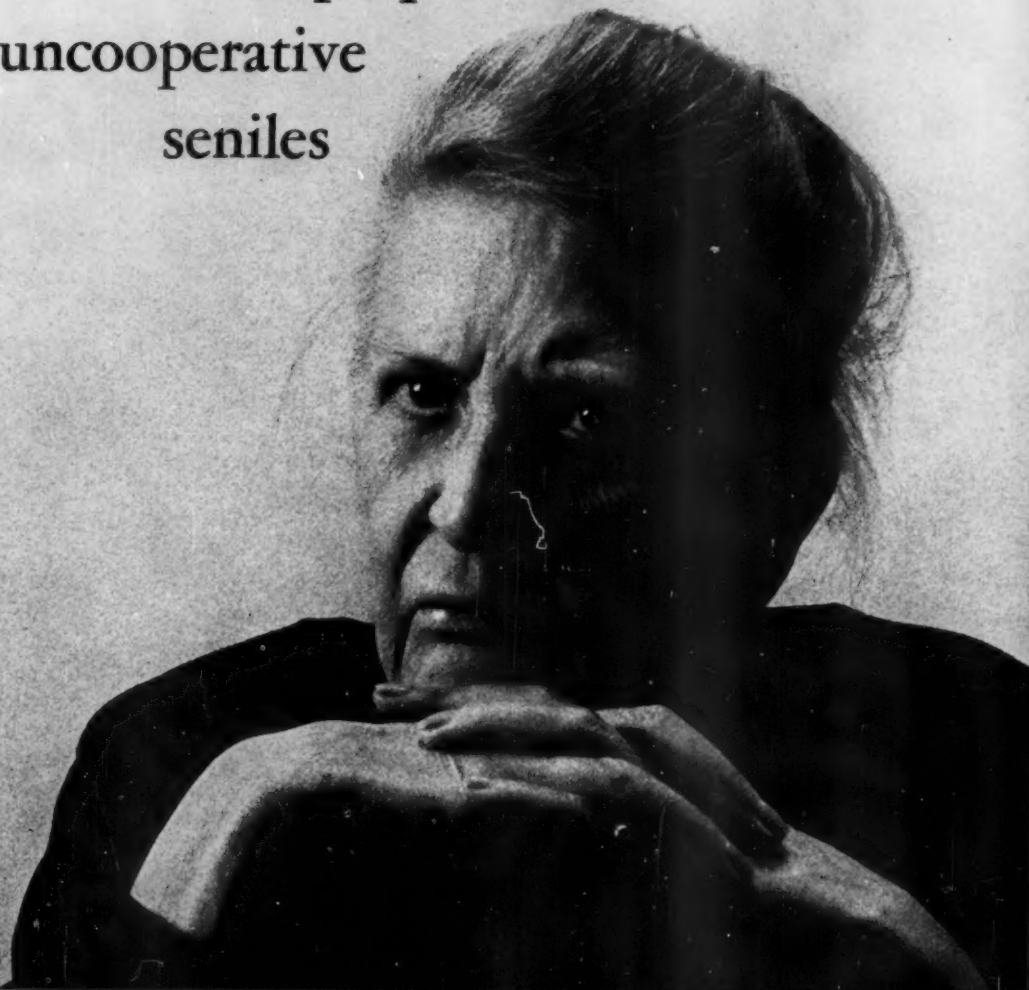
'Compazine' can also resolve the delusions and hallucinations of senile psychotics. And because 'Compazine' has little, if any, hypotensive effect, it can be used even in those patients who have cardiovascular disorders.

N.B.: If the senile psychotic is hyperactive, agitated, or belligerent, needing a sedative effect, Thorazine[®] (brand of chlorpromazine) may be preferable.

leaders in psychopharmaceutical research

**SMITH
KLINE &
FRENCH**

to help apathetic,
uncooperative
seniles



THE ADOLF MEYER RESEARCH LECTURE

THE STUDY OF DEFECT¹

PROFESSOR SIR AUBREY LEWIS, M.D., F.R.C.P.²

I believe I am the first Adolf Meyer Lecturer to have enjoyed the privilege of working at the Phipps Clinic in the days when Dr. Meyer was its head. It was therefore with exceptional pleasure that I learnt I was to have this opportunity of recording my personal debt to him. Tributes to the outstanding man in whose name this Lecture has been established have taken many forms, and American psychiatrists know better than we who came to Hopkins from abroad, what his services have been to psychiatry in this continent. But it is right for us who carried back to our own countries what we had learnt, to say what we owe him: the example of his integrity—his moral and intellectual integrity—and his conception of the humane aims of our specialty. These exercised a force upon his pupils whose effect can still be discerned in the psychiatric developments of Great Britain and some of the Scandinavian countries. No doubt it is a mistake to look around in one's middle age and decide that in comparison with the great men under whom we served our apprenticeship we are a lesser breed of epigoni, busy in dotting i's and crossing t's: it would, however, be no mistake to say that for the progress we have seen in psychiatry during the last quarter century we owe much to the labours of predecessors, very notable among them Adolf Meyer, teacher and exemplar.

I have chosen to speak of the study of defect. This may seem a paradoxical choice, since of all the wide issues in psychiatry mental defect is the one which Dr. Meyer least considered in his oral teaching and his writings. In his Salmon Lectures (32) he acknowledged the relative lack of plasticity and modifiability in defectives, and the pas-

sage might be taken to suggest that because of his melioristic passion, the intractability of this group of constitutional weaknesses put them outside the scope of his concentrated thought and effort. Such an inference would be, I think, mistaken. Dr. Meyer was distressed by the common attitude of superiority and even contempt towards the mentally defective: he tried to counter it by emphasizing "that there are perfectly good and useful imbeciles and that it is the use, and not only the quantity of the assets which decides human desirability" (31). But lacking clinical access and experience in these conditions, and having so much work to his hand in other areas of psychiatry, it is not surprising that he said and wrote very little about the intellectually handicapped.

The intellectually handicapped—in using such a phrase I am perhaps begging a question? At home I should almost certainly be told that I am, for this is a contentious issue with us. Because of it mental defect has become a murky concept. The most recent and outspoken inquirer (48) into this vexed matter concludes that

the urge to get away from purely intellectual concepts of mental deficiency and to substitute the criterion of social competence, has thus left us with a situation which is fantastically complicated—or perhaps "muddled" would be a better word.

I shall be returning to this cardinal issue: I mention it now, as a reminder—at any rate for us in England—of the fuzzy outlines and unsteady basis of the object of our studies in retardation, or defect (as I think we may still call it).

It has been until lately a neglected branch of psychiatry. But in research this is now happily untrue. The rate at which fresh knowledge about mental defect has been accumulated in the last 20 years contrasts strangely with the slowness with which pub-

¹ Read at the 116th annual meeting of The American Psychiatric Association, Atlantic City, N. J., May 9-13, 1960.

² The Institute of Psychiatry, The Maudsley Hospital, Denmark Hill, London, S.E. 5, Eng.

lic authorities and doctors have given up regarding it as an Ugly Duckling. In few countries does the care of defectives receive the administrative and financial support that is accorded to psychotic patients—extramural facilities for them are weaker than those offered to the neurotic who seeks help in outpatient departments and day hospitals; and, most disconcerting of all, the bulk of psychiatrists do not regard this branch of clinical work as lively and rewarding.

Yet its notable recent triumphs are surely the prelude to a wide advance. The doors are opening fast. At least 5 distinct metabolic anomalies have been detected, so that possible ways appear of aborting their ill effects on mental growth: the genetic peculiarity of mongolism has been disclosed in the extra chromosome produced, we may suppose, by non-disjunction; challenging evidence has accumulated on maternal conditions during early pregnancy which may retard a child's mental development; the capacity of imbeciles to learn has been found greater than we thought. These are advances, fit for application to treatment and prevention, which are as considerable as any made in the study of other forms of mental disability during the same period. Professor Böök(5) says that in the field of mental deficiency we can see some of the most brilliant contributions of genetics to psychiatry; that statement might be extended, I believe, to cover the contributions of biochemistry and perhaps of psychology also. In spite of this arresting efflorescence of research in mental deficiency, it remains the branch of psychiatry that seems least attractive to our recruits. For a vacant post in the mental deficiency hospitals competition is less keen than for posts of the same standing in the other mental health services. Yet the prestige of any subject commonly rises when it is known to be advancing in basic knowledge that can be applied to human affairs. It may be objected that though this sort of prestige impresses informed on-lookers and attracts research workers it does not move doctors to take up the practice of a special branch of medicine. This I doubt: while recognising, of course, that many other factors besides impressive scientific advance determine the choice of a particular

career in our profession. Professor Merton's investigation(30) showed that the process begins early. The recent study by Professor Pasamanick and Dr. Rettig(39) has confirmed that in the eyes of medical students psychiatry still ranks low among the specialties; and one may suspect that if subdivisions of psychiatry had been explored, work in the mental deficiency services would have been found near the bottom of the list.

Is this poverty of esteem because the study of defect is unimportant to modern society? Far from it. In England and Wales—to take the statistics best known to me—the expectancy of admission to a mental deficiency hospital is four for every thousand male births, and three per thousand female births: over a quarter of all the beds for mental disorder are reserved for mental defectives; besides the occupants of these 58,000 beds in mental deficiency hospitals, there were nearly 80,000 ascertained defectives receiving community care from local health authorities in 1955. In spite of many causes for divergence in prevalence estimates, there is substantial agreement between surveys carried out at different times and in different places during this century which indicate a prevalence rate of between 0.8% and 1.0% of population, or 3% to 3.5% of the population under the age of 18, exhibiting varying forms or degrees of defect. This figure proclaims the rough extent of the aggregate personal misfortunes, the waste and the socio-economic handicaps which widespread mental defect implies for a civilized community. It is true that these are crude statements. Defect is not a biological entity, or indeed a psychological or pathological entity, but rather a congeries of morbid conditions. Its prevalence is not an absolute, but a conditional estimate. The cultural values and attitudes of a society have much to do with its recognition and may determine how heavy will be the economic and social burden it creates. Moreover, here kindness may be cruel, and efficient provision a hardship: for in a wealthy, humane, highly organised society people who are poorly endowed may be set aside and debarred from living a normal life, so that they cannot contribute their self-respecting mite to the common

stock or fulfill their side of the social contract, whereas in a ruder, less exacting society they might be integrated into the life of the community and be indistinguishable from the common run of its members. And the extent of the liability is mounting: the social and medical advances which permit mongols and other handicapped children to survive, lead to an appreciable increase in the prevalence of defect: a fourfold increase over the last 30 years in the prevalence of mongols in the population of children aged 10 years, as Carter(7) has recently shown. Such considerations reinforce the argument that here in defect we have an enormous social and medical issue—or rather network of issues. They underline the disturbing paradox: mental defect is a challenging, insistent, promising branch of psychiatry, yet psychiatrists are not, on the whole, drawn towards it.

It is all the stranger when we consider that the study of defect promises to throw light not only on its own path but on some of the byways of the rest of psychiatry—byways so often traversed that they have become ruts leading into bogs. There are important and popular divisions of psychiatry in which the law of diminishing returns is painfully evident, so that there is much cry and little wool. This cannot be said of the study of defect at the present time, nor of its potential relevance to cruxes that puzzle psychiatrists generally. Now that the ice has broken here in the streams of biological, social and psychological research, our understanding of mental illnesses stands to profit from advances in knowledge of the pathology—psychopathology and somatic pathology alike—of mental defect. Perhaps the paradox I have been dwelling on is only a matter of time-lag. Among psychiatrists in England at any rate there has been, I believe, a perceptible quickening of interest during the last two or three years in the practice as well as the study of mental deficiency: it can be attributed to their awareness of the scientific stirring in the subject, and its closeness to other psychiatric issues of moment.

The concept of defect has, of course, long been based on a simple dichotomy, that many would say has now served its turn. It was summed up by Esquirol(10) in an epi-

gram—"The dement is a man deprived of the possessions he once enjoyed, he is a rich man who has become poor. But the defective has been penniless and wretched all his life." Esquirol—who said also "Defect is not a disease, it is a condition"—was herein making a distinction that had been firmly established in jurisprudence. The common law of England, from the 13th century, drew a line between the "natural fool," witless from birth, and the lunatic who "hath had understanding but by disease, grief, or other accident, hath lost the use of his reason." Similarly in the early Brehon Laws of Ireland. It is an obvious way of dividing those who have never been, from those who have ceased to be, mentally normal. Yet this commonsense differentiation took a long while to achieve clinical sanction. At the end of the 18th century the medical distinction between dementia and defect took a long while to achieve clinical sanction. At the end of the 18th century the medical distinction between dementia and defect was blurred, as we see very plainly in the writings of such leaders as Philippe Pinel and Johann Christian Reil:

Insanity in one of these forms can go through a sort of transformation, emerging in another form, so that one sees melancholics pass into mania, some manic patients fall into dementia or idiocy, and sometimes even some idiots pass into a temporary attack of mania and then fully recover the use of their reason (Pinel) (41).

Such being the jumble, Esquirol was rendering some service to clear thought by asserting the distinction he did, with sharp and authoritative precision. But it is significant of the whirligig on which our thinking about these matters seems to turn, that we are now veering back in some respects to the position which had been assumed by Esquirol's predecessors, and which seemed to have been abandoned more than a hundred years ago. A few months ago a Committee of the Group for the Advancement of Psychiatry, in their brochure on basic considerations in mental retardation, wrote(15):

Historically the concept developed that deviant children could be classified accurately into clear-cut categories such as the psychotic, the neurotic, those with character problems, and

the mentally deficient. More recent experience has underscored the difficulties inherent in differential diagnosis. In a substantial number of cases the diagnostic term attached to a given patient depends upon the orientation of the examiner rather than upon the presenting symptomatology or developmental history of the patient.

Such subjectivism is an indictment of our discipline (if we may continue to call it a discipline, after that), but it shows the way the wind is blowing.

Classification is usually a jejune theme. In this instance it has the value of a signpost, betokening changes in the direction of our thought about the nature of defect. The latest swing is expressed in the 1957 report of our Royal Commission (42):

The basis for this (the traditional) distinction between the mentally ill and the mentally defective is practical rather than scientific. Broadly speaking, people who develop a mental illness in adult life and people who have been mentally retarded since birth or childhood need and receive different forms of care and treatment. On the other hand, the term "mental defectiveness" as well as the term "mental illness" covers a wide range of mental conditions, and there is a body of opinion which considers that it would be more suitable to treat some forms of mental deficiency in the same hospitals as the milder forms of mental illness than to accommodate all types of mentally defective patients together in one hospital. It is also a fact that some diseases which affect the brain, at whatever age they occur, result in a mental condition similar to that of a person whose mind has never fully developed, and general degeneration of the mental faculties in adult life sometimes has a similar result. One of the questions on which opinions differ widely, is whether the term "mentally defective" should be confined to people who are subnormal in intelligence, or whether it should also be applied, as it sometimes is at present, to some whose intelligence is normal, being near or even above average, but who show serious lack of maturity in other aspects of their personality.

After lengthy discussion of the question the members of the Royal Commission concluded that the general class "mental disorder" should include disability from defect as well as illness; and in the Mental Health Act which became law last year their

recommendation was adopted. Of course neither Royal Commissions nor Acts of Parliament can make us use for medical purposes categories which we do not think useful and apt; but the statutory changes were in fact the response of legislators to a strong trend of informed medical opinion. The implications of this trend reach far, and I shall return to it.

The revolutions of opinion about how defect should be classified and treated derive from historical influences more extraneous to medicine than is commonly supposed. Certain of these deserve closer regard.

In the first phase social issues—such as criminal responsibility, and capacity to control one's possessions—dominated systematic consideration of the nature of defect. Men stressed its kinship to the limited capacity of children to reason, to judge moral or intellectual issues, and to act appropriately. Hence came feudal claims to wardship of the land of a "natural fool," "purus idiota," and the definition of

an idiote or a natural foole is he who notwithstanding he bee of lawfull age, yet he is so witless that hee can not number to twentie, nor can he tell what age he is of, nor knoweth he who is his father, or mother, nor is able to answer any such easie question.

At the same time influences of an older date caused defectives to be credited with guileless virtue, so that "innocent" and "crétin" (chrétien) were considered appropriate terms for them.

As we move through the centuries towards our own time, philosophers have more and more to do with the matter. Vives, the pupil of Erasmus, developed the principle that in education the process of learning is determined not only by the subject matter to be learnt but by the nature of the learning mind. And, concerned as he therefore was to adapt methods of instruction to the peculiar needs of the learner, he became a pioneer in urging the special requirements of the mentally defective and the deaf. A century later came Locke, insisting that all knowledge derives from experience, by way of sensation and reflection, *i.e.* introspection—a view half accepted by Condillac, with consequences that are still discernible in our methods of treating de-

fect. Condillac, in his famous model or myth of the animate statue endowed only with one modality of sensation, illustrated his belief that from sensations all the mental operations, including desire and abstract thought, are genetically developed: hence it followed that anyone who would educate children who are handicapped from their earliest years must foster a dual process, training them in observation and training them in reasoning.

Everybody knows how these views, and probably those of Helvetius, determined the persevering experiment by Itard 150 years ago which, misguided though it was in aim, put an end to the long era of hopelessness and neglect for the imbecile. All that has since been done, and is still being done, for the education of the mentally defective harks back to that patient application of 18th century philosophy.

In the 19th century the extraneous forces came not from philosophy but from biology: and within medicine, from morbid anatomy.

The biological mold into which current knowledge about defectives was poured was at first largely anthropological, in the spirit of Blumenbach and Prichard—and of course Gall. Interest in the size and shape of skull became intense. Medical writings on defect in the first half of the 19th century are cluttered with cranial measurements. Esquirol devotes six or seven pages of his textbook to considering the value of such measurements; Griesinger likewise. But little was gleaned from all this craniometry. Thomas Fuller had put the matter in a nutshell—"their heads (those of naturals) sometimes so little, that there is no room for wit; sometimes so long, that there is no wit for so much room."

Another illegitimate offspring of biology and anthropology was the long-lasting conception of mental defect as the last or the "atavistic" stage in the degeneracy of a stock; it was in its heyday when propounded by Morel, it passed into its decline with Langdon Down and, last of all, Cruikshank: and was deeply involved in the pedigree-haunted terrors of those who told us about the Jukes and the Kallikaks.

In this century the dominant influences upon defect have come from more dispersed fields of knowledge—from metabolic studies,

from epidemiology, genetics, and—in grateful mutuality—from psychology, which owes to mental defect the incalculable impetus given by Binet's brilliant development of mental tests between 1904 and 1911 (2,3,4). In our time investigation into mental defect has been responsive—sometimes weakly, sometimes strongly—to every wind that blows through medicine: witness the sizeable output of papers on the effect of "tranquilizing" drugs upon defectives, and the little series of reports a few years ago on what prefrontal leucotomy and hemispherectomy could do for some disturbed imbeciles. The *Zeitgeist* seems to have been quite busy, fixing the advances, and ensuring the periods of stagnation, in this branch of psychiatry.

There is, however, one tributary to the stream of progress that has received, I think, too little attention. For the last hundred and fifty years or more it has flowed powerfully though intermittently.

This is the study of language, and particularly its application to the work of teaching deaf children to speak. There are several curious themes which intersect the mesh of this story. I do not want to go too far back, so I shall remind you only of Lord Monboddo, the forerunner of Darwin. Lord Monboddo (6) maintained that speech is not performed "naturally," but is acquired by custom and exercise, and in support of this quoted the "wild men who had been reported from the 14th century onwards"—

I say in the first place that of all those savages which have been caught in different parts of Europe, not one had the use of speech, though they had all the organs of pronunciation such as we have them, and the understanding of a man, at least as much as was possible when it is considered that their minds were not cultivated by any kind of conversation or intercourse with their own species . . . One of these was caught in the woods of Hanover as late as the reign of George I and for anything I know is yet alive . . . He was a man in mind as well as body, as I have been informed by a person who lived for a considerable time in the neighbourhood of a farmer's house where he was kept and had an opportunity of seeing him almost every day, not an idiot, as he has been represented by some who cannot make allowance for the difference that education makes upon men's minds; yet he was not only

mute when first caught, but he never learned to speak.

Here, in 1774, we have a topic familiar in the earlier history of defect—can a “natural” or feral man be educated; we have also the prelude to the hotly argued debate as to whether these wild men are mute and brutish because they have been brought up away from human kind, or because they have congenital mental defect. You may be wondering whether Monboddo borrowed his ideas from the French philosophers then busy with such matters. I think not. He tells us that he developed his opinions without knowledge of Condillac’s views (though he later read an extract from the *Essai sur l’origine des connaissances humaines*).

Lord Monboddo clinched his argument about the origin of speech by adducing a special case.

What puts the matter out of all doubt, in my apprehension, is the case of deaf persons among us. And their case deserves to be the more attentively considered, that they are nearly in the condition in which we suppose men to have been in the natural state. For, like them, they have the organs of pronunciation; and, like them too, they have inarticulate cries, by which they express their wants and desires. They have likewise, by constant intercourse with men who have the use of reason, and who converse with them in their way, acquired the habit of forming ideas; which we must also suppose the savage to have acquired, tho’ with infinitely more labour, before he could have a language to express them. They want therefore nothing in order to speak, but instruction or example, which the savages who invented the first languages likewise wanted. In this situation, do they invent a language when they come to perfect age, as it is supposed we all should do if we had not learnt one in our infancy? Or do they ever come to speak during their whole lives? The fact most certainly is, that they never do; but continue to communicate their thoughts by looks and gestures, which we call signs, unless they be taught to articulate by an art lately invented.

Monboddo then describes the methods used by the Abbé de l’Epée in Paris and by Braidwood in Edinburgh, and continues:

If it had not been for this new-invented art of teaching deaf persons to speak, hardly anybody would have believed that the material or mechanical part of language was learned with so much difficulty. But if we would get an Orang Outang, or a mute savage such as he above-mentioned who was caught in the woods of Hanover, and would take the same pains to teach him to think that Mr. Braidwood takes to teach his scholars to speak, we should soon be convinced that the formal part of language was as difficult to be learned as the material. For my own part, I am fully persuaded that the minds of men laboured as much at first, when they formed abstract ideas, as their organs of pronunciation did when they formed articulate sounds; and till the mind be stored with ideas, it is a perfect void, and in a kind of lethargy, out of which it is roused only by external objects of sense, or calls of appetite from within. It was this want of ideas which made the Hanoverian savage pass, in the opinion of many, for an idiot.

The parallel here with Itard’s (19) reasoning in the famous case of Victor is obvious: the education of the wild or natural man is to be modelled on that of the deaf-mute. For Monboddo the exponent of how to teach the deaf is the Abbé de l’Epée; for Itard, 30 years later, it is de l’Epée’s pupil and successor, the Abbé Sicard. There were, of course, conspicuous differences between Itard and Monboddo; one was a young doctor of 25, the other an elderly judge, a busy Lord of Session at Edinburgh; and whereas one was enthusiastically occupied day by day with treating deaf children at the Institution Nationale des Sourds-et-Muets, the other was able only to speculate about them and about others deprived of a normal upbringing. But the line of thought was the same, and it brought lasting benefits to the defective.

Itard’s example fired Séguin, who never faltered in his admiration for the man and his achievement. And like Itard—possibly because he had been Itard’s pupil—he looked back in his efforts for the defective to the principles which underlay the successful education of deaf-mutes. But it was not to the principles of de l’Epée and Sicard, but to those of their brilliant rival, Jacob Rodriguez Pereira, that he turned for guidance. Whereas de l’Epée had been content to teach the deaf to communicate

by signs and finger-spelling, Pereira taught them to speak. Séguin (43) drew an analogy between Pereira's basic principles and those which had enabled Séguin himself, as he believed, to solve the problem of treating defect.

I am not unaware that the problem of educating deaf-mutes was attacked and even solved in the last century from a wider standpoint, that of Pereira, which is strikingly analogous to that which I have used to solve the problem of treating mental defect.

This analogy bore practical fruits in many countries. When Séguin came to this country it was to Dr. Samuel G. Howe, an expert in the treatment of the deaf and the blind, as well as of the feeble-minded, that he first went. In Germany, at the same time, Dr. Saegert, the head of the Asylum for Deaf-Mutes in Berlin, established his school for defectives (1842). Earlier in the century Albrecht Vering in Münster, Guggenmoos in Salzburg, K. F. Kern in Möckern, and Katenkamp in Oldenburg had conducted the education of mentally defective, deaf and blind children in the same schools, on the same broad principles.

There was, it is clear, a powerful and significant transfer from the theory and practice of educating the congenitally deaf, to the training of the mentally defective. This derived from recognition of the cardinal role that language and speech play in mental activity. Esquirol said that

what determines the peculiar character of the different varieties of defect is the use of language, that essential attribute of man, given him to express his thought: it is the feature most clearly related to intellectual capacity in defectives.

Fifty years ago Binet and Simon endorsed Esquirol's view:

So one can distinguish the patients according to their ability to speak or to learn to read, because these are not inherent faculties but practical attainments which depend on the energy and level of certain faculties: and that is all measurable.

The issue still has contemporary importance. In current research, when we talk of

problem-solving and thinking, we are forced to consider how words enter into the formation of concepts, and facilitate generalizations. And since even the simple operations which imbeciles can carry out, may entail the solving of a problem, we have to regard closely the defective's way of attaining concepts, and of using verbal generalization to this end.

The dependence of concepts on words was stated in its most uncompromising form by Max Müller (34).

What we have been in the habit of calling thought is but the reverse of a coin of which the obverse is articulate sound, while the current coin is one and indivisible, neither thought nor sound but word.

We know from studies in aphasia, such as Head carried out, and from many experimental inquiries how untenable this extreme view is. But there is much convincing evidence that words aid thinking and are for some conceptual processes indispensable—what C. E. Osgood has called the "representation level" of organization in cognitive processes.

Vigotsky, Luria and other Soviet psychologists (46, 25, 26) have emphasised the directive and adjuvant function of speech in normal mental development. Lublinskaya (24), for example, showed that children could differentiate signals much more quickly when verbal labels were attached to them, and that differentiations thus verbally reinforced were more stable and generalised than those elaborated without it. Similarly the Iowa workers—Spiker and his colleagues (44)—have demonstrated that when a child is given a common name for a set of stimuli, or a relation name (*e.g.*, middle-sized), he learns more quickly to generalize and discriminate in an instrumental task: assigning a verbal symbol, or label, to approved stimuli may make it more likely that a child will be able to transpose his learning to a new situation.

To determine how far this adjuvant role of words is held good for imbecile children, two of my colleagues in our Research Unit (16, 17, 18, 35, 36), Dr. O'Connor and Dr. Hermelin, devised and carried out during the last few years a series of experiments, some of which I should like to de-

scribe very briefly, though I fear that in doing so I shall rob them of their lucidity. O'Connor and Hermelin examined Luria's hypothesis that the significant deficit shown by poor verbal capacity is not so much an aspect of defective intelligence as an inherent difficulty in making the connection between words and motor behaviour. They found that though imbeciles (mean I.Q. 40) did not differ from normal children of the same mental age in certain tasks requiring discrimination and transposition, they were more quickly able to reverse a response previously learnt (*i.e.*, to move, for a reward, the larger of two black squares): whereas almost all the normal children could express the principle of discrimination in words referring to size, only one of the imbeciles did so. But when the reversal experiment was repeated with a group of imbeciles who were trained to state correctly in words that they had moved the bigger square each time that they did this, and then given the trials in which they were required to move the smaller square to obtain their reward, there was no longer a significant difference between the number of times they needed before they were successful and the number needed by normal children of the same mental age. It could be concluded that verbal reinforcement had made good a deficit in the imbeciles—a deficit which in other contexts we might regard as an advantage. They forsook a learned motor habit too easily, until a word—a concept—reinforced it, or, as we might put it, until verbal self-instruction induced a "set" which caused negative interference when the opposite choice between stimuli was imposed on the task. Their behaviour was the antithesis of that which might be shown by an obsessional or by a patient with organic cerebral disease who perseverates. It is open to several theoretical interpretations. It might be, as Luria supposes, that defectives are handicapped by a failure (in Pavlovian terms) to bring the second signalling system, which operates with words, fully into intimate and regulatory relation with the system that determines motor behaviour.

But whether the interpretation be along the lines of Pavlov's or Skinner's or Osgood's theoretical formulations, it is evident

that the use of verbal symbols, and especially those which refer to connections that have meaning, is the *pons asinorum* of defectives. If they can be helped to cross that bridge they have advanced considerably and may even be on the road to a modest literacy, such as Itard struggled so hard to attain in poor Victor.

In the next experiments imbeciles learnt to transfer a verbal response (a three-letter noun) from a pictured object to its written equivalent, and then to discriminate between each of the written words and two others with one letter different. Finally when they made ten correct choices of written words in succession, the subjects were presented with the four written words and asked to say what these were, so that their "reading score" (the number of correct responses out of a possible twelve) could be assessed. Before the experiment these imbecile children had failed to pass Burt's scholastic reading test at the four-year old level; now they learnt to read and they retained to some extent what they had learnt. They improved further in their ability to discriminate between written words after they had traced the letters of the correct word with their fingers, thereby suggesting that the relation between motor and verbal modes of behaviour may still be one of weak reciprocal aid. The simple conditioning technique used in this experiment is, of course, a familiar if old-fashioned way of teaching a child to read: here its interest lies in the demonstration of what reinforcement and practice can achieve in this domain for severely retarded children. The experiment also demonstrated that the conditioned response could be very rapidly transferred to new material, when the task was changed—a potentially important finding.

In further investigations into discrimination of written words, O'Connor and Hermelin selected 24 children of I.Q. 30-39, mean I.Q. 33.7, and having trained them to discriminate a printed word from three others (each of four or five letters) varied the size of the letters (height between 3 mm. and 10 mm.) in a determined sequence, to discover whether changes in size helped the defectives to learn to discriminate shape, or hindered them in this,

through being mistaken for the relevant attribute of the stimulus display. The result was in keeping with G. A. Miller's (33) findings. Shape discrimination was found to be easier when alternative discriminatory features in another category of visual stimulus, size, were also offered, provided that the subjects had not in their first discriminatory tasks been able to rely on constant size in the letters of the cue word whenever exposed. A learning set could be established in the first stages of the experiment which worked for or against the generalisation that size of letters mattered in discriminating between words.

The same investigators found that when imbeciles (I.Q. 40) had learnt to repeat a number of unrelated words, it was significantly more difficult for them to learn an equal number of familiar words which were synonyms of the first; but if a second lot of words was given, related by sound instead of by sense to those first learned (*e.g.*, rhyming with them, as in "heel" and "meal"), then learning the second lot was facilitated: if the two sets of words were not connected by sound or meaning, there was neither advantage nor disadvantage from having learnt the first set. In part this conformed with the learning behaviour of normal young children; similarities in sound help association between words. But it also indicated—contrary to Luria's findings—that in these defectives some semantic generalisation takes place, and causes interference. Moreover when O'Connor and Hermelin asked their imbecile subjects three months later to give their first associations to the words contained in the original test set, and classified the responses, it was clear that those who had in the previous experiment been given synonyms to learn now gave a majority of meaningful associations (85%), whereas those who had previously had sound-connected sets to learn, or sets unconnected either by sound or meaning, showed no significant preference in their associations and did not differ materially in this respect from a control group who had not taken part in the experiment three months earlier. The tentative conclusion is that in these imbeciles training in learning semantically connected words leads to an

effective "set" which is relatively stable, and educationally valuable.

You may interrupt at this point to ask what all this has to do with the medical aspects of mental defect. Very interesting to academic psychologists, no doubt, but clinically trivial, and unpractical. To this objection I would reply that studies which throw light on the defective's ways of thinking and learning can hardly be trivial, nor, if they further his use of language, are they unpractical. Consider the three great Frenchmen whom I have already quoted: Itard (19) thought it worth his while to struggle for four years to teach Victor to speak and read: Séguin (43) asked us to picture "the difficulty, the weariness, the exhausting, heart-breaking efforts that these experiments entail for the teacher": he is referring to the experiments in which he tried to teach the hydrocephalic defective Amedée how to articulate words distinctly, and to read them; and Alfred Binet at the end of his joint *Mémoire* with Simon on the intelligence of imbeciles, pleaded eloquently for experimental study of the process of thinking and especially of generalisation. If a more modern justification is called for, it is surely implicit in our therapeutic aims. We want defectives to lead as happy and socially normal a life as possible. A socially normal life in literate societies presupposes, even at a low level, some education. It calls for acts of decision, and even, in very simple terms, for discrimination between words: to take a crude example, the defective going about in a modern city needs to recognise the symbols which distinguish public toilets for men from those for women, or the numerical symbols which denote the particular bus he wants to use. If he is capable of engaging in some productive occupation, his ability to connect symbols with concepts, and concepts with motor behaviour, is of social importance—though occupational adequacy is far from being the whole of social adequacy. As Sarason and Gladwin (28) have lately emphasised, our culture makes demands on learning capacity in all those, severely subnormal or not, who are trying to live in society. This is no novel view; the most cogent declaration of our duty towards defectives in this regard

was made by Binet and Simon in 1907(2). Reviewing the pedagogic and other reasons for retaining in special schools what they call verbal work, alongside the concrete manual tasks, they said :

These reasons apply particularly to the school. There are other reasons, social reasons, which are still more imperious. Nowadays, especially in towns, it is necessary that people should be able to read, write, count and express themselves appropriately. It has been rightly pointed out that reading is the triumph of abstraction and that a defective may take two years to learn to spell words out even at the most modest level : never mind, if the thing is possible, with however great an effort, that defective ought to learn to read. What matters is not the level of his intelligence, but his social status, and there he will suffer if he is illiterate. In questions of this sort, psychological and educational indications should give way to the demands of ordinary life ; necessity decides it.

The indications of psychology and education now point in the same direction as the demands of daily life.

It would be appropriate here to turn aside from imbeciles, so limited in their capacity to learn and think, in order to consider the social adequacy of that much larger group, the high-grade defectives. But before looking at this tangled issue I should like to refer, cursorily, to other studies of imbeciles carried out by members of our Unit—studies that are complementary to those I have been describing. They examined particularly the effects of motive upon performance, in its social bearings.

In a series of laboratory and workshop investigations (8, 12, 13, 23) they demonstrated that the performance of imbeciles who had been given an external incentive improved significantly, when compared with that of a control group of imbeciles, in a variety of motor tests ; moreover the imbeciles acquired a skill—folding cardboard boxes—which improved strikingly when the social conditions in the workshop approximated to normal, in that each imbecile worked alongside a high-grade defective who did the preparatory glueing and the two boys constituted a working unit ; they could readily see their joint work and in most cases took pride in their attainment ; this was true even of patients with an I.Q. of

only 20 or so. Further experiments by Clarke and Hermelin (9) (which preceded Hermelin's studies of concept formation) showed that incentives act differently, as might be expected, upon imbeciles of diverse personalities : but an appropriate incentive brought the patients to the point at which they could perform repetitive tasks, of the sort industry requires, as well as high-grade defectives could. The imbeciles could thereafter partly support themselves through the payment they received, for work that gave them pleasure and satisfaction.

Since personality and personal relationships have been experimentally shown to have an effect upon the level which imbeciles can attain, we thought it desirable to examine the differences between severely subnormal children who remain in their families and those who have been committed to institutional care. In the ensuing survey by Grad and Tizard (14), there were 150 families with an idiot or imbecile living at home and 100 families with a similar defective child who had been in an institution for between one and 5 years. The children and their families differed in many respects, inevitably : and it is impossible to review briefly here the social and psychological characteristics of these two groups. The occupational data, however, bore out the experimental findings that there are considerable differences in the abilities of imbeciles which can not be attributed to differences in level of intelligence. A low intelligence score did not represent as severe a handicap as did a concomitant physical defect. Physical disabilities were, of course, common : half the patients, both those in the institution and those at home, had such disabilities, especially cerebral palsy and epilepsy. Gross multiple handicaps of this sort were, however, more frequent among the institutional patients. Although there were some almost untrainable and unemployable patients, burdened with an accumulation of defects, it seemed that with suitable training at least 10 to 20% of imbeciles can be employed in useful remunerative work, provided there are economic conditions of full employment, and satisfactory care for them at home or in a hostel.

Defects of temperament were among the

handicaps many of these imbeciles exhibited: some were restless and excitable, others torpid and apathetic. Among the 150 imbeciles over the age of 16 in this investigation, 13% were judged to be over-active or almost uncontrollable, and 28% sluggish and inactive, but of course these summary epithets do not convey the varied anomalies of personality. The investigation cast light, sometimes heartening and sometimes disconcerting, upon the interaction between doctors and welfare or other workers, on one hand, and the severely subnormal patients and their parents on the other. The social issues raised here were complex and crucial.

It is at this point that a British psychiatrist tends to leave the comparatively pure air of the field study and the experimental workshop for a sultrier atmosphere in which there is much contention about notions of sociopathy, and about enactments that seem to darken counsel. For in our recent Mental Health Act (29)—admirable in so many respects—there are, as I have mentioned already, some definitions which trail clouds of dubious nosology behind them. Please forgive me for saying more about them than I would if they bespoke only a national idiosyncrasy. I believe they reflect ideas about the nature of defect which are widespread and which are crowned with the nimbus of such adjectives as "progressive," and "dynamic." I am not sure they deserve these epithets.

The new Act banished the term "mental deficiency": henceforth officialdom does not know this category, it has been swept away to the limbo where "idiotcy" and "insanity" and "asylum" lie, waiting no doubt for the euphemisms that for the present have supplanted them. According to the Act the generic term "mental disorder" is extended to include "arrested or incomplete development of mind." Three classes of mental disorder are defined—subnormality, severe subnormality and psychopathic disorder. So far so good: the decay that afflicts any word referring to an unpleasant reality has overtaken "mental deficiency"; and Parliament and the World Health Organisation urge us to say "subnormality" instead—no great hardship. But there is another term

defined in the Act—"psychopathic disorder." The definition runs:

a persistent disorder or disability of mind (whether or not including subnormality of intelligence) which results in abnormally aggressive or seriously irresponsible conduct on the part of the patient, and requires or is susceptible to medical treatment.

This harks back to the recommendation of the Royal Commission, two years earlier, proposing that high-grade defectives and psychopaths

should be recognised as together constituting one main group of mentally disordered patients, the other two groups being the mentally ill and severely sub-normal.

It is, of course, in keeping with the strong trend, both in Britain and in the United States, to shift the emphasis in high-grade defect (or retardation) from intelligence alone to other features of personality, to minimise inherited as against environmental causes, and to use as a main criterion of such defect social maladjustment and emotional insufficiency. This standpoint has much in common with the current view, expressed by Masland, Sarason and Gladwin (28) that

cultural and environmental factors . . . through the establishment of unhealthy or inadequate patterns of intellectual response, may prevent the optimum functioning of the mind in a person whose nervous system is basically capable of normal activity [and that] "within certain broad limits one can distinguish those mentally subnormal individuals whose disability is attributable primarily to a demonstrable defect of brain structure or chemistry from those whose malformation is the result of hearing deficiencies resulting from unfavourable environmental influences.

The advantages of this way of looking at the matter are manifest, but it is sometimes pushed so far that intelligence, about which we know a great deal, is played down in favour of emotional development and social fitness, about which, on the whole, we still know little. The approach can be a stimulating one for research, but over-zealously adopted it could have a retrograde effect

upon administrative and clinical practice, in which the new legislation adjures us to follow it.

The distinction I am drawing is perhaps too sharp: scholastic and intelligence test performance is still the main criterion of diagnosis for subcultural defect or feeble-mindedness, but the auguries point to its supersession. The *Manual on Terminology* (1) recently published by the American Association for Mental Deficiency lays it down that mental retardation is

subaverage general intellectual functioning which originates during the developmental period and is associated with impairment in one or more of the following: (1) maturation, (2) learning, and (3) social adjustment [and states that] "social adjustment is particularly important as a qualifying condition for mental retardation at the adult level, where it is assessed in terms of the degree to which the individual is able to maintain himself independently in the community and in gainful employment as well as by his ability to meet and conform to other personal and social responsibilities and standards set by the community.

To use such concepts as these for purposes of research will be an arduous and slippery business. What its consequences might be when applied in epidemiological inquiries can be inferred from the instructive findings reported in the thorough and valuable Onondaga County Study. Dr. Gruenberg and his colleagues (11) found that standards vary strangely, such factors as colour of skin and place of residence affected the ascertainment of children judged to be mentally retarded; mental retardation, Dr. Gruenberg concluded, is "a complex set of manifestations of some children's relationship with their immediate environment." This is true, but such complexity cries out for heuristic simplification: otherwise confusion threatens. The conscientious inquiries into the effect of cultural background on the diagnosis of retardation which are reviewed in Sarason and Gladwin's comprehensive report seem to indicate that in this area

"Chaos Umpire sits

And by decision more embroils the fray
By which he reigns."

While we struggle in this darksome realm, it is hazardous to put our trust in shifting semblances: or, to be more explicit, in social and emotional indices that vary with the observer and, more disconcerting still, vary with the environment. In her trenchant critique of psychiatric findings, which pillories many a lapse from logical and scientific rectitude, Barbara Wootton (48), herself a sociologist, takes up this weakness, states it in a clear proposition and explores its corollaries. Recognising that mental defect tends increasingly, in Great Britain at any rate, to be diagnosed, not by an intellectual test but by the defective's inability to accommodate himself to the demands of a highly industrial society, she takes the next step—which is to recognise that

if, as may be supposed, the capacity for social adjustment conforms to a more or less normal pattern of distribution, the cut-off point at which this defectiveness is held to be established must depend upon how exacting this demand for adjustment happens to be

so that it can come about that the criterion of defect may depend upon such completely adventitious factors as the state of the employment market.

In a less sophisticated age we should have said that one of the merits of full employment was that it made it easier for mental defectives to obtain employment. Now apparently we have to say that it actually reduces the number of such defectives. To appreciate the full significance of this situation we may imagine what would happen if similar reasoning were applied to the analogous case of some incontestable physical disability, such as the loss of a limb. Full employment certainly makes it easier for legless persons to get jobs, but no one in his senses would take this to mean that under full employment there are fewer persons without legs. Similarly full employment makes it easier for ex-prisoners to get jobs; but that is not to say that full employment diminishes the number of ex-prisoners, as distinct from the number who are able to get employment. Such statements would be manifestly absurd; but their absurdity well illustrates the difference between a disability which is established by a criterion that is, and one established by a criterion that is not independent of current standards of social competence.

And, Lady Wootton adds,

so long as defectives are subject, as they are, to legal and other disabilities, the significance of this difference is much more than semantic. If defectives are deprived of full civic rights and responsibilities, and even in some cases of their personal freedom, and if the number of defectives varies with the state of the employment market, it follows that some people are liable to lose their status as fully responsible citizens or to be deprived of their liberty, merely because employment is bad.

Lady Wootton's argument, thus lucidly stated, seems cogent. I say seems, for we psychiatrists, sublimed students of complexity that we are, distrust lucid arguments: convincing syllogisms, we suspect, are superficial, and what seems obvious is probably incomplete and over-simple. But surely in this instance we must concede something to the criticism: and we must admit that if we fall in with the tendency now to equate "high-grade defect" with "psychopathic personality" because of the relativity of the two concepts and their essential dependence on some standard of social competence or adjustment, it will widen unduly the social door of entry into a traditionally medical category. In Tredgold's well known textbook of *Mental Deficiency* (45), we may read that

it is probable that if the real nature of mental defect were more generally appreciated many, although not all of those who are called psychopathic personalities would be found to be certifiable under the Mental Deficiency Acts.

Such an affirmation raises issues which far transcend the apparently diagnostic and semantic questions. It is pleasanter to consider Jastak and Whiteman's (20) conclusion that

the retarded do not impose a disproportionate load upon community resources either in the form of legal infractions or excessive demands for social services . . . mental subnormality, it appears, need not connote an inability to fill an acceptable social role.

I would like here to underline the distinction between social criteria, and social determinants, of defect. Nothing I have been

saying is intended to minimise the manifest importance of the social factor nor the potency of emotional pressures and twists. Quite the opposite. A large part of the studies in defect by our Research Unit has been directed toward the social problem, as the title of O'Connor and Tizard's book (37) made clear. And as for the role of emotion, I would recall a passage from *Leviathan*

Naturall wit consisteth principally in two things: celerity of imagining . . . and steady direction to some approved end. On the contrary a slow imagination maketh that defect, or fault of the mind, which is commonly called dullness, stupidity . . . And this difference of quickness is caused by the difference of men's Passions . . . And the difference of Passions proceedeth partly from the different Constitution of the body, and partly from different Education.

It was the same Thomas Hobbes who said "The Light of humane minds is Perspicuous Words." In the psychiatry of defect our words will become perspicuous and the concepts they denote illuminating only if we probe further into how constitution, education, environment and emotion determine those differences of intelligence which Hobbes thought fundamental between man and man.

And so I finally come to causes. In psychiatry we seldom distinguish sharply between etiology and pathology; and in the network of preceding events it is profitless to insist on a strict hierarchy of causes, epidemiological, psychological, clinical and the rest. It is, however, plain that in the whole area of defect prospectors equipped with new tools can hope to "strike it rich." The vein has already been opened by metabolic studies, and by the genetic investigations that have revealed peculiarities in chromosome formation in mongolism—both, as Linus Pauling (40) lately reminded us, matters of molecular structure about which knowledge is decidedly on the move.

What is known and what is inferred about the etiology of defect has been critically reviewed within the last year or so by Professor MacMahon as well as by Dr. Masland (27, 28). Their masterly surveys make detailed consideration by anyone else

superfluous for the present. However, among the diverse studies I should like to single out for reference those of Professor Pasamanick and Dr. Knobloch and their associates (21, 22, 38), because of the care with which their data have been collected and analysed and because of the attractive explanatory hypotheses they offer. I need not recapitulate to this audience the arduous investigations through which they believe they have demonstrated that disturbance in the circumstances of pregnancy and birth can bring about a continuum of cerebrogenic anomalies, manifest as disorders of behaviour, reading difficulties, tics, defect of varying degrees, cerebral palsy, and epilepsy. The complications of pregnancy (such as toxæmia and bleeding), dietary inadequacy in the mother during the months of pregnancy, abnormal delivery, and premature birth were judged responsible for sub-lethal (as well as lethal) misfortune to the child. Mental retardation, according to their findings, is conspicuous among the sub-lethal consequences that may ensue when the reproductive process is deflected from its normal course. If retardation is accompanied by physical evidence of neurological damage, a relation of cause and effect is habitually and widely accepted, at any rate so far as perinatal damage is concerned: but the challenging conclusion of Knobloch and Pasamanick urges us to consider that lesser degrees of prenatal and perinatal cerebral damage may produce defects unaccompanied by detectable neurological signs, defects which are commonly attributed to heredity and post-natal influences. The body of evidence they have produced as warranty for these conclusions is impressive; and some of their more specific hypotheses are provocative, especially that which connects insufficient diet—perhaps of protein—during the critical early months of pregnancy with mental retardation in the child. Still more provocative are some recent developments of Pasamanick's views. Incorporating his continuum of reproductive casualty with Locke's and Helvetius's *tabula rasa*, he supposes that men are conceived equal in intellect (apart from a few who inherit neurological defects), and that it is exogenous brain damage, "life

experience and the socio-cultural milieu influencing biological and psychological function," that make us differ one from another. This rather egalitarian hypothesis would exalt the power of environmental influences high above their wonted credit: if it proves correct—and no one can call it incorrect who has not examined with equal care Pasamanick's evidence and the contrary evidence which speaks for polygenic inheritance as the main determinant of human differences in mental ability—then the possibilities that open out do not merely concern the prevention of defect and other ills, but the raising of normal human capacity throughout the population. This would afford yet another instance of the wheel turning full circle. When Séguin devoted himself to experiments in educating idiots and imbeciles, he arrived at principles which had a larger scope than his medical obligations towards the defective. At the end of his book he wrote:

But if by a turn of the wheel, in compensation as it were, it happened that the solution of a very small problem brought with it the solution of a very general one; if it happened that while working away to settle the modest question of how defectives should be educated, one had found a formula precise enough to be applicable to education generally . . . then not only would one have rendered some service in a relatively humble sphere, but one would have laid the basis for a scientific method of education.

It is unlikely that Pasamanick shares all the St. Simonian optimism of Séguin: but in such experiments in preventing defect as he now advocates, lies much hope of illumination.

Few of us psychiatrists can have a clear conscience about mental defect. We have given it less attention than it required, and research has only belatedly concentrated on the pitiful and involved problems which it thrusts upon the clinician's notice. Now that much serious inquiry is in progress, it seemed fitting that the Adolf Meyer Lecture should be devoted to a cursory glance into this large area of research and action. I have not tried to do in one lecture what 21 notable contributors aimed at accomplishing in the Woods School Conference

(47) last year. Their survey and the current list of projects supported by your Department of Health, Education and Welfare show that the vineyard calls for diverse labourers to cultivate it in many places. I have referred to some work of which I have immediate knowledge, and to studies which illustrate the close interplay between developments occurring outside medicine and certain kinds of research that have been fruitfully prosecuted to elucidate and control defect. The work now in hand is inspiring. It looks as if future lecturers who choose this theme may have a rich harvest to report.

BIBLIOGRAPHY

1. American Association for Mental Deficiency. A Manual on Terminology and Classification in Mental Retardation (Ed. : Heber). Am. J. Ment. Def. Monograph Supplement, September 1959.
2. Binet, A., and Simon, T. : Les Enfants Anormaux. Paris : Armand Colin, 1907.
3. Binet, A., and Simon, T. : Ann. Psychol., 15 : 1, 1909.
4. Binet, A., and Simon, T. : L'arriération. Ann. Psychol., 16 : 349, 1910.
5. Book, J. : Genetical etiology in mental illness. In Recent Progress in the Epidemiology of Mental Disorder. Millbank Memorial Fund, N. Y. (In press.)
6. Burnett, J. (Lord Monboddo) : Of the Origin and Progress of Language. Vol. 1. 2nd Ed. Edinburgh : Balfour, 1774.
7. Carter, C. O. : J. Ment. Def. Res., 2 : 64, 1958.
8. Claridge, G., and O'Connor, N. : J. Ment. Def. Res., 1 : 16, 1957.
9. Clarke, A. D. B., and Hermelin, B. : Lancet, 337 : 2, 1955.
10. Esquirol, E. : Des Maladies Mentales. Brussels, 1838.
11. Goodman, M. B., Gruenberg, E. M., Downing, J. J., and Rogot, E. : Am. J. Publ. Hlth., 46 : 702, 1956.
12. Gordon, S., O'Connor, N., and Tizard, J. : Brit. J. Psychol., 45 : 277, 1954.
13. Gordon, S., O'Connor, N., and Tizard, J. : Am. J. Ment. Def., 60 : 371, 1955.
14. Grad, J., and Tizard, J. : The Mentally Handicapped and Their Families. Maudsley Monograph Series. London : Oxford University Press. (In press.)
15. Group for the Advancement of Psychiatry. Basic Considerations in Mental Retardation : A Preliminary Report. Report No. 43, N. Y., 1959.
16. Hermelin, B. : Concept learning and verbalisation in imbeciles. University of London : Ph.D. Thesis, 1958.
17. Hermelin, B., and O'Connor, N. : J. Ment. Def. Res., 2 : 21, 1958.
18. Hermelin, B., and O'Connor, N. : Qu. J. Exper. Psychol., 12 : 48, 1960.
19. Itard, J. M. G. : Rapports et mémoires sur le sauvage de l'Aveyron : L'idiotie et la surdi-mutité. Paris : Progrès Médical, Bibliothèque d'Education Spéciale, 1824.
20. Jastak, J. F., and Whiteman, M. : Prevalence of mental retardation in Delaware. In Nature and Transmission of Genetic and Cultural Characteristics. N. Y., Milbank Memorial Fund, 1957.
21. Knobloch, H., and Pasamanick, B. : Distribution of intellectual potential in an infant population. In Epidemiology of Mental Disorder. Washington : Am. Ass. Adv. Sci., 1959.
22. Knobloch, H., and Pasamanick, B. : J. Am. Med. Ass., 170 : 1384, 1959.
23. Loos, F. M., and Tizard, J. : Am. J. Ment. Def., 59 : 395, 1955.
24. Lublinskaya, A. A. : The role of the word in the development of the child's cognitive activity. In Psychology in the Soviet Union (Ed. : B. Simon). London : Kegan Paul, 1957.
25. Luria, A. R. : J. Ment. Def. Res., 3 : 1, 1959.
26. Luria, A. R., and Yudovich, F. I. : Speech and the development of mental processes in the child (Ed. : J. Simon). London : Staples Press, 1959.
27. MacMahon, B. : Physical damage to the fetus. In Recent Progress in the Epidemiology of Mental Disorder. Millbank Memorial Fund, N. Y. (In press.)
28. Masland, R. L., Sarasan, S. B., and Gladwin, T. : Mental Subnormality. N. Y. : Basic Books, 1958.
29. Mental Health Act. London : H.M.S.O., 1959.
30. Merton, R. K., Reader, G., and Kendall, P. C. : The Student Physician. Cambridge : Harvard U. P. for Commonwealth Fund, 1957.
31. Meyer, A. : Ment. Hyg., 9 : 673, 1925.
32. Meyer, A. : Psychobiology. Ed. E. A. Winters and A. M. Bowers. Springfield : Thomas, 1957.
33. Miller, G. A. : Psychol. Rev., 63 : 81, 1956.
34. Muller, M. : The Science of Thought. Vol. 2. N. Y., 1887.
35. O'Connor, N., and Hermelin, B. : Speech and Language, 2 : 63, 1959.
36. O'Connor, N., and Hermelin, B. : J. Ab. Soc. Psychol., 59 : 409, 1959.

37. O'Connor, N., and Tizard, J. : *The Social Problem of Mental Deficiency*. London : Pergamon Press, 1956.

38. Pasamanick, B. : *Am. J. Ment. Def.*, 64 : 316, 1959.

39. Pasamanick, B., and Rettig, S. : *Arch. Neurol. Psychiat.*, 81 : 399, 1959.

40. Pauling, L. : *Am. J. Orthopsychiat.*, 29 : 685, 1959.

41. Pinel, P. : *Traité Médico-Philosophique sur L'Aliénation Mentale*. Paris : Brosson, 1809.

42. Royal Commission on the Law relating to Mental Illness and Mental Deficiency, 1954-1957. Report. London : H.M.S.O., 1957.

43. Séguin, E. : *Traitément morale, hygiène et éducation des idiots et des autres enfants arriérés*. Paris : Baillière, 1846.

44. Spiker, C., Gerynoy, J. R., and Shepard, W. O. : *J. Occup. Psychol.*, 79 : 416, 1956.

45. Tredgold, A. F. : *A Textbook of Mental Deficiency*. 9th Ed. London : Baillière, Tindall and Cox, 1956.

46. Vigotsky, L. S. : *Psychiatry*, 2 : 54, 1939.

47. Woods School Conference. Approaches to Research in Mental Retardation. *Am. J. Ment. Def.*, 64 : 227, 1959.

48. Wootton, B. : *Social Science and Social Pathology*. London : Allen and Unwin, 1959.

DISCUSSION

PAUL V. LEMKAU, M.D. (Baltimore, Md.).
—We are indeed fortunate in the privilege of hearing one of Dr. Meyer's most brilliant students deliver this Adolf Meyer Lecture. Sir Aubrey Lewis' choice of subject is particularly appropriate since it brings before us a relatively neglected field. Dr. Meyer also tended, in his more or less obsessive all-inclusiveness that some of us remember so well, to pick out that area for discussion that seemed for the moment to be eclipsed in the blaze of light from some other interest in psychiatry.

There are a few points in Sir Aubrey's discussion on which I would like to enlarge. The statement is made that the field of mental deficiency is a rapidly moving one, replete with new research findings. Because of them, the specialists in pediatrics are, in this country at least, remarkably stirred. It is mostly pediatricians who are doing the teaching about the discoveries regarding the genetic defect in mongolism, and it is they who are spearheading new research institutes to look further into the

genetically determined metabolic disorders. Public health authorities have responded vigorously to the new knowledge, perhaps too vigorously. I heard a while ago that the New York City Health Department had run some tens of thousands of diaper tests in hospitals and had yet to discover its first case of disorder of phenylalanine metabolism. But the test is very cheap and the cases which will certainly eventually come to light will have a chance to avoid phenylketonuria deterioration. That the manufacturers of test substances for ketonuria were all exhibiting at the American Public Health Association annual meeting but are not in evidence here at the annual meeting of the APA so far as I have noticed is evidence in favor of Sir Aubrey's conclusion that psychiatry neglects mental deficiency as an area of action.

Sir Aubrey noted that the Royal Commission urged a distinction between the mentally ill and the mentally defective as a practical measure. Paper number 123 of this meeting will report a survey of cases seen in out-patient services in Maryland. The abstract doesn't indicate that Mrs. Bahn intends to take up a point the survey made clear, so I will introduce it here. Analysis of the data by total number of visits to clinic by diagnosis showed that some diagnostic groups had very few visits while others showed treatment of somewhat greater length. Those conditions with the fewest visits carried the diagnosis of mental deficiency and mental diseases associated with aging. Those with the largest number of visits included psychoneurosis, the so-called functional psychotic states, epilepsy and character disorders. Except for character disorder or, as Sir Aubrey refers to them, psychopaths, which is often a diagnosis made at the end of long but unsuccessful treatment, the distribution of length of treatment seems to correlate rather well with prevalent notions about treatability; to put it bluntly, the clinics worked hardest and longest where they suspected success would be possible.

There is, of course, real reason to question whether this sort of categorization really holds. There are a number of reports in the literature indicating that some senile states respond well to treatment when treat-

ment is carefully adopted to the discovered needs of the patient. In the field of particular concern of Sir Aubrey, the long term prognosis is quite good, since all studies indicate that diagnosed mental defect is much more common in children than adults, and that the differences are not due to differential death rates. Lest you should feel this is merely an epidemiologic trick, let me point out that for many purposes the criterion of social adjustment sufficient to avoid medical or sociological detection of disease is a quite reasonable definition of health. On the basis of prognosis it is difficult to defend psychiatry's tendency to give short shift to mentally deficient patients. We have done it so long, however, that parents of such children don't like us very well anymore and turn to people who take a more realistic, in this case optimistic, so far as social adjustment is concerned, viewpoint in the matter.

The essence of the wish to separate mental deficiency from mental illness seems to me to rest in the recognition that mental deficiencies have, usually, a more or less static handicap so far as intelligence is concerned, though, as already noted, not in social adjustment. There is evidence, of course, that in some cases intelligence levels can be raised, but cases in which this can be achieved are still relatively rare. That test-intelligence is relatively static, however, does not mean that other personality parameters will share the stultification. There has been, perhaps, too easy a generalization that intelligence is an indicator of what the whole person can and will do. The evidence appears rather strong that maturation in other personality assets is not necessarily bound to the intellectual limit.

Sir Aubrey referred to the work of Pasamanick, Knobloch and their collaborators in the area of reproductive wastage and its consequences for survivors. This work rein-

forces the idea that the problem of the prevention of mental defect rests in insuring that the inherent capacities of the organism are protected and maintained. They have showed some of the places we must look for agents that can, too often irretrievably, reduce the *capacities* of the individual that are at their maximum at the moment of fertilization. From that moment on, the *inherent* capacity of the individual can, so far as we now know, go in only one direction, downward. The preventive task is to free the individual so far as possible from loss of capacity. Pasamanick and Knobloch have illustrated areas in obstetrical and pediatric practice where opportunities for prevention exist, but they have also showed, in their work on later development, that postnatal environment, in terms of psychological and sociological determinants offer equal and, probably, more available opportunities to protect inherent capacity.

One further point and I will stop pursuing the multitude of ideas stimulated by Sir Aubrey's presentation. The relative stability of defect states implies the newer types of psychiatric services that are now developing. We hear much of the deleterious effect of hospitals on people kept too long. This thinking is not applied so frequently to the effect of institutionalization on the mentally defective, though there is no reason to suspect that it is different. If it makes sense to offer home services to the schizophrenic or senile patient released from hospitals as soon as his severe behavior disorder is controlled, it must make sense to offer services easily available to the caretakers of mentally defective persons in the community. The development of such services and of the patterns of administration suitable to make them maximally effective are among the challenges presented to us in Sir Aubrey Lewis' very informative essay.

BATTEMENTS AND BRIDGES IN THE EAST : THE CZECHOSLOVAK PSYCHIATRIC CONGRESS WITH INTERNATIONAL PARTICIPATION¹

JULES H. MASSERMAN, M.D.²

It had long been my avocation while travelling about the world to learn how my colleagues elsewhere observe facts and form opinions—and to acquire a growing insight that the distinctions among “facts” and opinions are not as absolute as I had formerly imagined. When, therefore, I received an invitation from the Czechoslovak Ministry of Health to be “an honored guest and principal speaker at the First Czechoslovak Psychiatric Congress with International Participation,” I welcomed an opportunity to help re-establish long-suspended relationships with our colleagues within the Soviet zone of influence, and attended the Congress at Jesenek, from September 7 to 11, 1959. The following is a highly condensed report of its proceedings.

BACKGROUND OF THE CONGRESS

During the later periods of the Stalin regime, and especially during his prewar purges, all non-Marxist psychologic or sociologic ideologies grew increasingly suspect in the USSR, and those that could be considered anti-Marxist became anathema. To replace psychoanalytic and other “idealistic” theories, Pavlovian reflexology was elevated into a “materialistic organon of higher nervous function” which was to explain all behavior. This approach also seemed to offer two convenient corollaries : (a) that men differed according to their “neurophysiologic type,” thus justifying various assignments to different levels of responsibility, duty and reward and (b) that men could nevertheless be “conditioned” by appropriate “first and second-order stimuli” (i.e., an appropriately controlled physical and symbolic environment) to achieve almost any kind of social adaptation, thereby also fulfilling a requirement (succinctly restated by Myasischev at the Congress)

that “*Marxist philosophy could not admit that man was basically irrational.*” However, during the interregnum of the Triumvirate, of Malenkov, and in the early days of Khrushchev, the freedom of investigation demanded by the nuclear physicists and temporarily given to writers, poets and composers was also extended to psychiatrists, who for a time responded enthusiastically and productively. Unfortunately, there recurred an intensification of the cold war with another tightening of the reins and a second wave of retractions and retrenchments—but again most recently, with a second thaw in international relations seemingly in the making, another era of communication and rapprochement in the sciences and the humanities seemed at hand. It was to take advantage of this that the Congress was planned in a land that had always been an ethnic meeting-point for East and West, and by scholarly and foresighted men who were personally acquainted with the best traditions and scientific resources of both.

PROCEEDINGS

After the usual addresses of welcome by Chairman O. Janota and various civil dignitaries, F. Knobloch of Prague University sounded what he hoped would be a conciliatory scientific theme for the Congress by pointing out that both “micro” (e.g., physiological and animal experimental) and “macro” (e.g., individual or group analytic) studies were indispensable; i.e., altered metabolism or physical trauma can affect cerebral tone and excitability, and “thus derange the temporary neural connections which develop in the process of habit formation.” After other such efforts to collate physiologic terminology and Pavlovian structuralism with the concept of effective residues of individual experience, Knobloch appealed for greater “collaboration of investigators from varied lands and standpoints.” But this moderating position was challenged by O. Vymetal, of the University

¹ Read at the 116th annual meeting of The American Psychiatric Association, Atlantic City, N. J., May 9-13, 1960.

² The Medical School, Northwestern University, Chicago, Ill.

of Olomouc, in a polemic idiom with which one soon grew familiar. Said Dr. Vymetal, "It would be too undialectic to absolutize one theory, but also eclectic to be complex . . . All Western philosophical orientations, in particular neopositivism, existentialism, and pragmatism combine an erroneous ontological outlook necessary for scientific idealism and their principles are not utilizable for scientific theory. We start out from the principles of Marxist philosophy, dialectic and historical materialism. This serves as a protective screen against further errors." Vymetal's position was apparently endorsed by the initial spokesman for the Soviet delegation, N. Myasishchev of Leningrad, who likewise asserted that "materialistic psychology is uncompromisingly antagonistic to psychoanalysis, existentialism, biodynamic theory (*sic*) and other theories. Only socialism can develop proper moral-psychologic characteristics and so prevent neuroses due to non-adaptational cortical reflexes. Psychotherapy, must therefore consist only of adjustments to reality and collective work activity." P. W. Bassin of Moscow stated even more explicitly that "since the beginning of this century, Soviet psychiatrists had anticipated Hartmann, Kris, and Loewenstein in their devastating criticisms of Freud," that Soviet science absolutely rejected all forms of Freudianism as a "reactionary, mythological idealism," that Freudian psychoanalysis had therefore been stamped out in the Soviet Union and, Bassin obviously implied, should be treated similarly if it reappeared in any of the associated People's Republics.

It was at this somewhat difficult juncture that I was put in the position of official spokesman for Western psychiatric thought. Sensing that the presentation of technical research which had been originally requested by the Congress Secretariat would hardly be appropriate to the situation, I first conveyed the official greetings from various Western scientific societies as authorized,³ and then spoke extemporaneously to the following effect :

We of the West employed three major approaches to the understanding of human be-

havior : the historic-philosophic, the comparative-experimental and the interdisciplinary-integrative. In this we were in obvious accord with our Soviet colleagues, since they, too, see man as the product of ethnic and politico-economic evolution, investigate even his highest neural functions in the objective experimental tradition of Sechenov and Pavlov, and study him currently by means of every one of the interrelated social sciences. Many of us in the West know this because we follow the Russian scientific literature—in fact, the U. S. Government subsidizes its translation—and because some of our leading neurophysiologists (*e.g.*, Karl Pribram, Horace Magoun, Grey Walter) had exchanged or were planning to exchange visits with Russians of the calibre of A. I. Oparin, A. Luria and (the late) Professor Bykov. Neurology is hardly a neglected science among leading psychiatrists in the West (*e.g.*, David Rioch, Ben Boshes, Roy Grinker), and even our orthodox psychoanalysts profess respect for Freud's basically biologic orientations. For that matter, most broadly trained psychoanalysts regard their sub-field as only (a) a special method of research into each patient's energy systems, personality development, unique concepts and values, and characteristic patterns of transaction, (b) a constantly improving but ever tentative set of correlated postulates about human behavior and (c) an individually adaptable, rather protean and essentially socially oriented mode of interpersonal therapy. Indeed, what we actually refer to by our somewhat unfortunate terms "psychology" and "psychoanalysis" is the integrated study of man's total adaptations to his material and cultural milieu, whereas our Russian colleagues really mean the same when they use the perhaps equally abstract concepts of "primary and secondary signals," "higher cortical analyzers and effector systems" or "conflicts between excitatory and inhibitory irradiations." As to ancillary experimental approaches, I could offer the Congress not only my own work, but studies by Gantt, Liddell, Pribram, Delgado, Mirsky and others that equalled in rigor and objectivity the classic experiments of Pavlov and, like his, led to certain basic biodynamic concepts of behavior that best fulfilled the criteria of breadth, economy and predictability required of truly scientific formulations. Certainly, the best psychiatric therapy everywhere utilized every available physical and environmental means to restore personal happiness and social usefulness. Excluding irrelevant economic or political considerations, then, it might well be that many of the differences between Eastern and West-

³ The American Medical Association, the Academy of Psychoanalysis, the Society of Biological Psychiatry and others.

ern Psychiatric thought consisted in the choice of words rather than in operational referents. In any case, we of the West, and perhaps all of those present, hoped that the Congress would help remove this semantic handicap to greater rapport and collaboration among us.

My talk ended the first day's session, and despite the courteously prolonged applause, there was no way of ascertaining whether it had been received as an admission of, and retreat from, Western confusions and weaknesses, as a challenge to conflict, or as what it was meant to be: a sincere offer to leave clanking arms and tattered standards behind in outmoded battlements, lower the drawbridges, and meet on common ground for friendly scientific concourse. That it was taken in all these ways—but fortunately mainly in the third sense by most of the leading Russian delegates—became apparent as the Congress progressed. The first indication of this beginning rapprochement occurred at a round-table discussion on Concepts of Neurosis scheduled that evening.

When again asked to contribute to the discussion, I reviewed the neuropathologic connotations of the terms "neurosis" and "psychosis" from Cullen and Feuchtersleben through the kaleidoscopic meanings of Kahlbaum, Charcot, Freud, Sullivan, Fromm, Jaspers, and then back again through Eysenck and Guiliarovsky to currently renewed assertions that "neurosis is simply a disease of the higher nervous system." I stated that we could agree even with this if the term *disease* were taken quite literally to mean a "dis-ease" or disruptive un-easiness experienced by an individual under circumstances that he had somehow come to regard as stressful and threatening. In such conditions (or, in Russian, with such "conditioning"), the subject would be called "neurotic" if he reacted with various physiologic (autoplastic or "psycho-somatic") and social-transactional (alloplastic) disturbances greater than those thought to be necessary or appropriate by most observers—yet not sufficiently severe in intensity and duration ("psychotic") to justify forced isolation and treatment. However, in view of the current expansion of the term "neurosis" to cover so many viewpoints, vectors and contingencies, perhaps we would sooner or later abandon it as no longer of etiologic, diagnostic or prognostic value, much as we no longer accepted the previously literal meanings of Hippocrates'

"frenzy," Galen's "hysteria," Kahlbaum's "vesania," or Prichard's "moral insanity." Instead, just as the physicists outgrew the notions of "phlogiston" or "cosmic ether" and progressively sharpened their lexicon, so should we also accommodate to more modern and scientific concepts of behavior and its vicissitudes.

Perhaps this discussion constituted a bit of a gambit, since I knew that in some sections of the Russian literature neuroses were considered to be quasi-neurological diseases subdivisible into neurasthenia, psychasthenia and hysteria, and my presentation of predominant Western views had definitely challenged this position. The reaction was not long in coming: as rendered by the English interpreter, a psychiatrist from one of the Eastern countries once again characterized me as "obscurantistic, unscientific, misleading, deviationistic, idealistic" and, as a final epithet, also "religious." I learned later that he had begun a third sentence—which the translator omitted—to the effect that my views served the interests of "American capitalism and imperialism"—but at this point the speaker was abruptly cut off by the Chairman as being completely out of accord with the scientific and fraternal spirit of the Congress. The Chairman's remarks were fully translated into all of the languages and were soundly applauded as an edict that this type of political and ad-hominem polemic would no longer be countenanced.

Relations were further improved by efforts of Eric Wittkower of Canada, who had arranged an "Informal Seminar on Psychosomatics" with Drs. Sniezhniewsky, Bassin and other leaders of the Russian delegation. Word of this had got around, and by the time the seminar assembled, it had acquired a multilingual and highly effective moderator in the person of Dr. Chertok of Paris and an audience of over 100 eager psychiatrists from nearly every country represented at the Congress, all of whom apparently anticipated not only fresh information but also that interplay of move and counter-move which makes chess so intriguing to Eastern intellectuals. Despite a special invitation, I had not intended to be present at this seminar for a number of reasons: first, that I had already used my fair share of time (I had been given a sec-

ond hour in a full Congress session to present my data and motion picture films); second, that I did not want the inference drawn that we were staging a Western vs. an Eastern team debate—or indeed, that there was any official “Western Delegation” at all; and third, I had full confidence that Wittkower could ably continue to represent modern holistic views in the field. However, some two hours after the seminar began, I passed through the Conference room expecting the meeting to be over, and instead was immediately drafted by the Chairman into what was an apparently amiable but highly animated discussion.

The question at issue, it seemed, was the key concept of *regression*. The Russians claimed that this simply meant an atavistic return to simpler forms of mesencephalic behavior in the presence of physiologic or pathologic cortical impairment, whereas Wittkower advocated the analytic-dynamic version that a person placed under any form of stress tends to resume just those patterns of conduct more specific to his own early years: e.g., an ulcer patient reenacts and suffers from the motile and gastric hyperactivities of the hungry child. Since neither Drs. Bassin nor Sniezhevsky were willing to accept derivative clinical interpretations to support psychoanalytic premises, could I, the Chairman asked, furnish any experimental evidence bearing on the problem? I recollected several such bits of evidence: e.g., D. Levy's record of a full-grown, agile dog which, as it became jealous of a rival pet, began limping again as it had done years previously when it was a puppy being tenderly nursed for a broken leg. Perhaps more fortuitously, I also adduced Pavlov's own observations that when the terrors of the Leningrad flood abolished nearly all the conditioned reflexes in his dogs, *each reverted to patterns characteristic of its own early behavior*.

At this point Wittkower made an effective proposal: that instead of any further discussion of abstractions, each of us describe how he would actually treat, say, a 40-year-old male patient with a peptic ulcer. The Russians agreed, and outlined their procedure thus: first, they would take a complete personal history upon which to “base an understanding of the patient's higher neural functions”; next, they would advise proper diets and prescribe drugs such as atropine, banthine, gastric alkalisers and mucoid gells to modify the “deviant conditioning of the neuro-somatic reflexes,” and finally, they would “foster counter-inhibi-

tion of the excessive higher neural excitation” by providing rest and relief from environmental stress—including, if necessary, “sending a telegram to the patient's employer directing that his job be made easier.” Dr. Chertok (who as moderator, had sensed the possibilities of the interchange), Wittkower and I received this clinical outline enthusiastically; in fact, we pointed out that we might go even further; first, in securing richer details of the “personal history” through intensive analytic interviews, second, in neuro-somatic treatment by vagotomy or even gastrectomy if necessary, and third, by interviewing the employer personally. But I then raised a crucial issue once again involving regression and individual dynamics: suppose that the patient had been a deprived infant who had yearned for a devoted mother during childhood, and was now as an adult once more deeply disappointed that his wife did not properly fulfill a maternal role—would our Russian colleagues also “send a telegram” to the patient's spouse directing her to treat him with greater kindness? Or better yet, would they, through personal influence and the communication of understanding, “decondition” the patient so that he (including his stomach) would no longer yearn for excess (ultraparadoxically conditioned) “cerebro-somatic” indulgence? Indeed, they would, said the Soviet psychiatrists present, whereupon the meeting adjourned for vodka in a spirit of jovial goodfellowship, the Russians claiming that we were really materialistic neurophysiologists at heart and Wittkower and I endowing them with the honorary title of psychoanalysts in training.

It was at this point that the members of the Soviet delegation cordially invited Mrs. Masserman and myself to come on a “professorial visit” to Moscow, and other representatives followed their lead with corresponding, but as yet necessarily unofficial, invitations to Poland, Rumania, and Hungary. Throughout the rest of the Congress there was a noticeable relaxation of tension, a greater mobility and freedom of communication and a generally increased atmosphere of professional friendliness—although, be it noted, all questions of economic systems, politics or international relations continued to be carefully avoided.

Later Sessions:—The next morning the conference was opened by Hans Hoff, Professor of Psychiatry at the famous University Polyclinic in Vienna and currently Presi-

dent of the World Federation for Mental Health—which, incidentally, the Soviet Zone countries, after an absence of ten years, were beginning to rejoin. Professor Hoff spoke eloquently of psychiatric problems that affected all nations: alcoholism, drug addictions, juvenile delinquency, and the many personality and cultural stresses that resulted from displaced populations, weakened family structures, changing social customs and industrial automation. No one could take exception to his review, nor his moving appeal to all nations for “human-co-existence”; on the contrary, he was accorded a deserved tribute.

Hoff was followed by E. Wolf (Prague) who, in a paper of comparable thoughtfulness, returned to the clinical problems of psychotherapy and correctly pointed out that the good results of various forms of psychiatric treatment did not necessarily prove the sometimes narrow and conflicting theoretical convictions of their advocates. In any case, the patient should not be permitted to regress to excessive dependence either on physical or symbolic-experiential therapies but should instead be treated with a degree of medical and environmental realism that would “inhibit the deviant behavior to the point of extinction.”

The rest of the Congress consisted of a diverse array of papers and discussions, representative samples of which, either read or distributed as typed abstracts, deserve mention under the following rubrics:

Child Psychiatry: T. Simson of Moscow attributed most childhood neuroses to “severe toxemias of pregnancy or childhood infections which affect the cortical cells . . . We understand neuroses from the position of Pavlov, either as overloading of nervous processes or as a deviation resulting from conflicting excitatory and inhibitory processes; nevertheless, such neural deviations may also be induced by errors in upbringing . . . in an unsmiling environment.” V. Kudriavtseva, also of Moscow, proposed that children with post-encephalitic aesthenia “due to cortical inhibition” should be given “more rest and easier tasks at school,” and J. Vitek of Prague gave it as his opinion that, “in nearly all of a series of cases of childhood neuroses, there were evidences of fine residuals of centrencephalic damage.” On the other hand, E. Bartsch of Berlin investigated the psychological effects produced in children

by frightening medical procedures and found that, if the hospital milieu were such as to make the child feel loved and protected, even encephalography left no physical damage or repressed dread. J. Fischer of Prague reminded us that we had not yet traced the vicissitudes of adult life to the traumatic experiences of infants or toddlers. In a group of 80 neurotics aged 7 to 17, G. M. Pivovarova of Moscow found “disturbances of carbohydrates and protein metabolism in all” and correlated these with a “weakened nervous condition and mental worry of long duration.”

General Etiology of the Neuroses: G. Destunis of Berlin could find evidences of hereditary factors in only 30 of his series of 300 neurotic patients; in the others, endocrine factors or physical traumata combined with psychological stresses to produce the disordered behavior. B. Alapin of Warsaw believed that fear of cancer and other neurotic symptoms in women could be attributed largely to a hormonal imbalance. C. Koupermik of Paris attributed many neurotic reactions to the traumata of loss, but pointed out that if, for example, a patient had been active in caring for a dying relative or friend, there might be a “free interval” of from one to three weeks after the loved one died before the neurotic reactions developed, and that a physician could intervene during this time to prevent or mitigate the onset of the neurosis. In this connection, J. H. Rey of London reflected that perhaps a period of mild reactive depression is favorable to eventual recovery, “since it is human to feel guilt which motivates the patient to make reparation to real or imaginary victims. Patients who cannot get depressed are difficult to treat.”

Special Etiology: A. S. Christovich of Leningrad, like Bruetsch of Indiana whom he did not quote, traced some psychoses to rheumatic encephalitis, and T. Nievzorova of Moscow attributed others to the misuse of ACTH. T. P. Hackett of Boston studied the deliria occurring after frontal lobe lesions and the hallucinogenic effects of thalamotomy, and concluded that both could be modified by psychotherapy. K. Szilagyi and his associates in Budapest could find no differences between normals and schizophrenics on the Quick (benzoate-hippuric acid) test. Z. Böszormenyi, also of Budapest, studied the effects of administering 0.75 to 0.80 mgm./K of diethyltryptamine intramuscularly to 24 psychiatric patients and 30 controls, and noted that the drug induced an “experimental psychosis” which lasted only 2 or 3 hours, but which was followed by “the appearance of latent artistic drives expressed in painting, poetry, etc.” H. Bultavova, *et al.* of

Prague also studied various anticholinergic hallucinogens, possibly related to those being investigated by L. Abood in Chicago. However, J. Roubicek of Prague concluded that "Drug . . . experiments have not revealed the cause of endogenous psychoses, yet have founded a new field: experimental psychiatry . . . which can also utilize subjective experiences."

Psychiatric Therapy and Hypnosis: I. Hardi of Budapest treated various functional gait disorders by "electrotherapy, pharmacotherapy, narcoanalysis, and narcosuggestion." F. Volgyesi of Budapest, described his "Active Complexe Psychotherapie" as one that "turns to the cortex and is based on a purely intellectual approach" but did not correlate it with his previously advocated "Hypothalamic By-pass Hypnosis." I. Horvath of Prague reported that hypnosis induced "a marked facilitation of elective irradiation between cortical signalling systems, and good levels of extinction of old and working out of new conditioned reflexes which were quite stable after awakening, even when the patient could not verbalize the effect." S. Betlheim of Zagreb treated impotence by suggesting to mildly hypnotized subjects that they have erotic dreams, and noted that symptomatic improvement was heralded when the patients "dreamed of better contacts with the partner." V. A. Jasov of Moscow facilitated the induction and accentuated the effects of hypnosis by using barbiturates (especially the Soviet favorites, Medinal and Barnobil) but, like Bernheim three generations ago, wisely noted that the effects of this form of therapy are "conditioned less by the state of inhibition and more by the characteristics of the personality of the patient, the particulars of the pathogenic situation, the doctor-patient relationship, the content of the suggestion and the entire process of treatment." With this lead, N. Schipkowensky of Sofia warned again of the iatrogenic trauma of unskilled hypnosis, and recommended that deviant interpersonal behavior could best be resolved when both the patient and the therapist were fully awake. J. Dubois of Saujon also recommended a quiet environment and "affective neutrality" as most conducive to therapeutic results.

Alcoholism: The fifth and last day of the Congress was devoted to this topic, which is apparently as urgent a problem in the East as in the West. There were few claims as to single or even primary genetic, constitutional, developmental, dietary, psychologic or sociogenic causes for addiction to alcohol; faced with complex realities, serious workers in the field everywhere in the world soon abandon monothetic oversimplifications. Organic effects were

discussed by H. Casier of Ghent who noted that 10 to 12% of C-14 labelled alcohol was fixed in the tissue within 30 minutes, 25% in 3 hours, and that some still remained in the brain tissue after 15 days. Binding was most marked in the liver, which may account for hepatic cirrhosis in chronic alcoholism. P. Stokes, J. Reilly and O. Diethelm of New York thought they could correlate the emotions of alcoholics with specific chemical variations in their blood, whereas A. Povorinskii of Leningrad attributed the hangover to the "weakened hypnotic state of Pavlov." A. Bertrand of Paris found that alcoholism reduced industrial efficiency from 20% to 65% and F. Detengove of Tashkent observed that "ex-alcoholics become neurotic."

As to treatment, V. Borinievich of Moscow regarded only the early stages of alcoholism as immediately amenable to psychotherapy, and J. Strelchuck of Moscow outlined the methods to be used for more advanced cases as follows: 1. Detoxication, vitamins and prolonged sleep, 2. The establishment of negative conditioned reflexes to alcohol, 3. Physiotherapy, psychotherapy and work therapy, 4. Enforced Antabuse medication for 6 to 12 months with 5. Reinforcement of the negative conditioning to alcohol as necessary. Zachevitskii treated alcoholism by "short conversations and collective hypnosis" ending with "negative conditioning for alcohol with the aid of apomorphine and thiurane." J. Duba of Prague reported that Stopethyl may safely be substituted for Antabuse, since patients cannot abolish its anti-alcoholic action by drinking vinegar. J. Dent of London observed that in alcoholics as in other neurotics "to be or not be—that is the anxiety. So why not drink, since we shall not die until tomorrow?" But instead of "lulling the forebrain with sedatives," Dent recommended "stimulating the back brain with apomorphine." H. Faure (Bonneval, France) advocated three weeks of narcosis with barbiturates and Largactil, during which the patient was to be awakened thrice daily for "dream analysis, transference interpretations, group therapy and exposure to tape and motion film recordings of his previous behavior while intoxicated." J. Carrere (Epinary-sur-Orge) also insisted that his patients view motion pictures of their conduct during alcoholic-amnesic states, and reported that of 65 so treated since 1954, 29 have remained complete abstainers and 24 more "improved."

Other papers devoted to the public health and legal aspects of alcoholism may be summarized as follows: A. Tongue of Lausanne asserted that whereas the toxic effects of al-

cohol on social behavior varied from culture to culture, the alcoholic everywhere must be held responsible for his conduct. P. Jean of Paris indicated the extent of alcoholism in France by noting that his government now paid 80% of the cost of 3000 beds in public mental hospitals, and 1000 more in private ones, all devoted exclusively to the treatment of alcoholics. M. Marzynski of Lodz reported that the Polish Government "refused to use legal punishment, but insisted that the alcoholic undertake obligatory out-patient or group therapy." J. Skala, *et al.* of Prague reviewed the Czech Government's program, instituted in 1956, of individualizing the treatment of neobstinents *vs.* occasional or impulsive, *vs.* consistent or chronic alcoholics; however, he hoped that a revision of Law 87 "would stress educational and economic weapons rather than repressive ones."

And thus ended a meeting of nearly invariably informed, keen and eager minds assembled, for the first time in over a generation, in a Psychiatric Congress with truly International (East-West) Participation.⁴ To say that far-reaching scientific, philosophical, or even methodologic accords were reached would be unrealistic, but to deny that mutual understanding and respect were fostered that might lead to greater rapprochements in the future would also be to underestimate the undeniable success of the Congress.

⁴ Since the proper editing of a professional report is not conducive to the expression of personal sentiments, this last paragraph on Czechoslovakia should, I suppose, have been discarded by my cortico-differential analyzers as an idiosyncratic artifact. But art or not, the fact remains that my most significant memories of the Congress concern not its surface proceedings but the unfailing graciousness of our Czech hosts to every representative of every country, the growing warmth and cordiality the Russian and other Eastern delegations displayed toward nearly all the visitors from the West, and the half-embarrassed gift-giving and the undeserved but sincere expressions of gratitude from a spontaneously assembled farewell delegation on the occasion of our departure. But even more poignant were the final remarks of one newfound friend still separated from us by a curtain of governmental distrusts and suspicions: "Please write—but until official matters between our countries clear as we hope—don't yet write too often!" Nor is it much comfort to recollect that there are always two sides to a curtain, and that we, too, may still be impelled to make a like remark to a visiting Soviet scientist.

DISCUSSION

NATHAN S. KLINE, M.D. (Orangeburg, N. Y.).—This paper by Dr. Masserman constitutes a model for the reporting of conferences. He has accomplished the extraordinary feat of not only succinctly summarizing the contents of a vast number of papers but also portraying the dynamics of the conference itself. Since I had the opportunity of lecturing at Charles University in Prague only a few weeks before the conference I can attest to the accurate portrayal of the *dramatis personae*. In a recent monograph⁽¹⁾ I have discussed quite fully the organization of psychiatric care and research in the USSR with an appendix covering the situation in Czechoslovakia. My own report is dry and factual compared with the present paper. Almost all of us who venture into the Eastern European countries and have provided our hosts with any sort of time schedule have been most cordially received. Psychiatrists and other types of researchers have the same sort of time schedule as do most of us. If a psychiatrist whose name was only vaguely familiar to us were to call from a local hotel announcing his arrival and expecting to be entertained and shown the courtesies of our institution "today and tomorrow because we are leaving the next day" one would hardly be expected to drop everything else in order to comply with such a request. This is particularly true if it turned out to be the fifth or the fiftieth one in a row. In other words, for those of you who intend to visit these countries and would like to see the institutions, make certain that plenty of advance arrangements are made.

The only point about which I have to carp is a minor one. At first glance we are somewhat staggered by the extraordinarily high cost of items such as coffee or "luxuries." Translated directly into American monies or even in terms of "how many hours one must work to earn a pair of something or other" there appears to be gross underpayment. It is important to remember that the cost of housing is almost negligible, medical care is provided without cost, pensions and retirement are available at no direct expense to the individual and that provisions for the education of one's children are well taken care of. This means that many of the fixed costs which exist in our own culture are absent. Consequently, the true comparison should be in respect to *disposable income*. The balance is still distinctly in our own favor but not to the same extent as would appear at first glance.

This summer I expect to check on the ac-

curacy of Dr. Masserman's observations about Yugoslavia and in return extend my permission for him to visit Liberia, Nigeria, Afghanistan, etc., so that we may subsequently compare notes. The peripatetic American psychiatrist fulfills a most useful function and this species should be encouraged.

BIBLIOGRAPHY

1. Kline, N. S. : The organization of psychiatric care and psychiatric research in the Soviet Union. *Annals of the New York Academy of Sciences*, 84 : 147-224, 1960. (Presented at New York Academy of Sciences, New York City, November 16, 1959.)

SCRUPULOSITY: RELIGION AND OBSSIVE COMPULSIVE BEHAVIOR IN CHILDREN¹

WAYNE M. WEISNER, M.D., AND
REVEREND PIUS ANTHONY RIFFEL, S.J., M.A.²

The term scrupulosity is not new and has both theological and psychological aspects. The term scruple is derived from the Latin word *scrupulus*, meaning a small, sharp pebble which when lodged in a shoe caused discomfort or interference with walking. Later on, the term came to mean a very small weight, about one twenty-fourth of an ounce, so small as to affect only the most sensitive balance. From this, the English word scruple came to acquire a moral meaning of a minute reason or motive—so slight as to affect only a very delicate conscience. In this sense it has the dictionary meaning of careful, exact, conscientious, and implies a good healthy meticulousness. In its technical sense (and as used in this paper) the term scruple means an unhealthy and morbid kind of meticulousness which hampers a person's religious adjustment.

Early spiritual writers looked upon continuous scrupulosity as a moral malady of the soul. The past and present theological attitude is that scrupulosity means fear and insecurity which tend to make an individual see evil where there is no evil, serious sin where there is no serious sin, and obligation where there is no obligation. Thus scrupulosity is not seen due to a lack of knowledge but to emotional factors. There is evidence of a disturbance of judgment in that the scrupulous person considers something as important which in reality is trifling and negligible. These result in endless consultations with many priests, a state of endless doubt, and involvement with trivialities, all of this together constituting in varying degree a pathological state.

Among the first to classify the scrupulous person from a psychological point of view was Janet(6). He saw scrupulosity as a manifestation of psychasthenia. Emyieu(4)

followed Janet's theories. Fenichel(5) or more recently Mahoney(7) explain scrupulosity as a result of deep unconscious conflict. They see the scrupulous person as a victim of an over-severe superego. He has the ambivalence associated with regression to an early stage of personality organization and uses the defense mechanism of reaction formation, isolation and undoing, which are characteristic of compulsion neurosis. There are other interpretations by Allers(1), Moore(10) and Mailloux(8).

There is a high incidence of scrupulosity among the Catholic population. In a recent survey by one of the authors(12) it was found that one of 4 sophomores in a Catholic high school admitted to current scrupulosity. One of every 7 Catholic college students admitted to current scrupulosity. There was no sex difference. It must, however, be pointed out that much of this scrupulosity is transitory and not necessarily indicative of severe pathology. The duration ranged anywhere from a few months to 4 years with the average duration somewhere between 1 and 2 years. The age of onset is scattered across the developmental period from early childhood to late adolescence with a marked increase in the frequency of onset during early puberty. Doyle(2), Mullen(11) and McGowan(9) seem to be in agreement with these findings. We might note Wittel's(3) reference to "a phase of the ambivalence in adolescence."

We report here 23 children referred to the St. Charles Child Guidance Clinic, Brooklyn,³ in the past 10 years because of continuous and chronic scrupulosity. The group consisted of 12 boys and 11 girls between the ages of 10 and 17; the mean age being 12 years and 9 months. Fourteen of these children were referred by priests and 6 by doctors. Thirteen were referred specifically for scrupulosity. Typical initial

¹ Read at the 116th annual meeting of The American Psychiatric Association, Atlantic City, N. J., May 9-13, 1960.

² Medical Director, and Staff Psychologist, St. Charles Child Guidance Clinic, Brooklyn, N. Y.

³ Much of the clinical material available for this research was due to the interest of the former Medical Director of St. Charles Child Guidance Clinic, Dr. Frank Cassino and the clinic staff.

referrals were: "A bad dose of scrupulosity." "Scruples—most acute anxiety." "Abnormally scrupulous." "Compulsive thoughts of killing mother and beginning of scruples." "Overly religious." "Very disturbed—concerned about right and wrong."

These children were all Roman Catholics whose families were together and practicing their religion. Their primary education was in the local parochial school. For the most part they were of better than average intelligence with IQs ranging from 100 to 135 with only 5 below 110. Scholastically they functioned as well as one would expect from their high intelligence (school averages in the 90's). Furthermore, they were considered exemplary students, generally receiving A for conduct. Three were "only" children. Typical school reports were: "tops in his class," "fine scholastic record, energetic, splendid altar boy."

On initial referral their mothers were frequently very upset and some were in tears over their child's symptoms. Because of their own anxiety, many of the mothers tended to minimize the symptoms and emphasize the predominantly religious aspect, namely, the scrupulosity which they tended to view in a privileged way. This made it more difficult for some mothers to view it as an illness and consequently follow through on treatment. One of the mothers frequently was or had been scrupulous in the past. We have less information about the fathers, but they usually viewed the condition with less concern.

How did these children show their scrupulosity at the time they arrived at our clinic? Many presented problems concerning food such as: finicky eaters, food having lost its appeal, requiring permission to eat, and it being a sin to eat. Occasionally thumb sucking or hand chewing was in evidence. Breathing also had its problems such as: breathing is a sin, and breathing is stealing the air that doesn't belong to them. Coughing and spitting germs were sinful in terms of possibly killing someone. Another group of symptoms involved obsessive compulsive tics and rituals such as compulsive washing of hands, touching the walls or stepping on cracks, which was seen as a mortal sin. There seemed to be a problem concerning money and handling of posses-

sions. Moving and kicking furniture were sinful as property was destroyed. There was also fear of injuring someone, brushing against someone or killing someone. The sexual area also presented many problems for these children as they were concerned with impure thoughts and mixed parties which had kissing games. There seemed to be over-concern about bodily functions, problems with touching, and in some girls menstruation being equated with sinfulness. One girl felt compelled to take her bath with the light out. Television and other pictures, because of their sexual implications, also troubled some of these children. One penciled in low necklines seen in magazines. There was over-concern about modesty and their dress for fear they might be sexually seductive to others. One girl was concerned lest her parochial school uniform might be too sheer.

How did these children show their scrupulosity in specifically religious behavior? As practicing Catholics many of them not only attended church regularly but went to daily Mass. They were looked upon as good children and more religious than average. There were indecisions about right and wrong and fear of wrong in everything. They were continually consulting the priest and re-examining their conscience frequently throughout the day. The problem about Confession showed itself in various ways and was frequently quite dramatic. They felt past sins were either not properly confessed or were not properly understood by the priest. They were afraid they had omitted something and there were endless ruminations and repetitions of the same sin, and of all the trivial circumstances surrounding their actions, with inability to arrive at a satisfactory decision. Many found it difficult in going to Communion because of their inability to resolve their doubt about sin on their soul. In several cases among our boys it was found that there was much concern and fear about having sold their souls to the devil. One boy sold his soul to the devil so that the Dodgers would win. One girl went into a trance in church on the night she felt she had converted her non-Catholic grandfather because he finally accompanied her to church.

The precipitating event which triggered an acute phase of scrupulosity was an intense situation emotionally linked with their conflict. In our cases we found: A. The introduction of sexual material as, for example, the first mixed party or kissing game; learning about the processes of birth from a friend; seeing dirty words on a lavatory wall. B. Special religious events, such as the beginning of Lent or the making of their Easter Duty. C. A traumatic event such as sudden separation from the mother or mother substitute; or physical injury, or hearing a story about someone being possessed by a devil.

The personality picture of these scrupulous children as presented by the mothers appeared as follows: The children were usually seen as perfectionistic, being over-clean, always prim and fussy, extremely neat. They were also studious and too thorough, spending much time on their homework with a need to excel (which in fact they did). One youngster was described as: "Prays, works and studies intensely for long periods of time." Others were described as being "too good," "always a good child" and "requires little correction." They were described as shy, oversensitive, serious, nervous with a tendency to worry, and depressed. Socially they adjusted poorly and seldom had close friends and thus appeared as withdrawn, seclusive and lonely. The mothers felt that their children were overattached, needed their approval for being good and made them their chief confidantes. However, remarks from the mother on sex and sin were disturbing to them. The mother's feelings and her health also concerned them. In brief, there was very close mother-child relationship and what frequently appeared to be overprotection on the mother's part which resulted in a dependent relationship.

In general, in the eyes of the mother, early developmental history did not seem to deviate too much from the normal. In a few cases there was mention of early operations or rheumatic fever or a kidney infection. Several had asthma, all of which seemed to focus the mother's attention more on the child than on the other siblings. One youngster sucked his thumb until the age of 6, then bit his nails and then began to pull his

hair and then finally, when reprimanded, crossed his eyes and walked into the wall. Unfortunately, information on toilet training was scant. It was seldom specifically mentioned as being difficult. In general, their early behavior was seldom mentioned as a problem.

The personality picture as derived from psychological testing may be summarized as showing much immaturity and dependency. The youngsters appeared introverted, fearful, sensitive, anxious, critical and perfectionistic. They were frequently guarded, evasive and cautious. There was a preponderance of obsessive compulsive traits, lack of spontaneity, and there were indications of rigidity and constricted functioning. Ambivalence and seeking inner controls of emotions were also in evidence. Chronic and acute doubting appeared. Sexual preoccupation, sexual conflict and guilt were strongly indicated. In many there was poor self identity.

Initial psychiatric interviews gave further confirmation of their personalities as described above. In all, 18 psychiatric interviews were available. Nine of these scrupulous children were seen as having an underlying schizophrenic matrix or functioning on a pre-psychotic level.

These children presented a chronic and severe form of scrupulosity. Although the content of their productions was of a religious and spiritual nature, the problem was basically not a moral, but an emotional one. The core problem was in the handling of both sexual and aggressive impulses, and we see the symptoms on all levels of psychosexual development. The aggressive impulses seemed to produce the most difficulty. Much aggression was present but went unrecognized by others and more especially by themselves. The competitive theme was very strong with need to excel, and much sibling rivalry. They were frequently manipulative, passively resistive and provocative. Their sexual conflict had oedipal overtones. Coupled with this was profound and incapacitating ambivalence (mixed feelings) and excessive guilt. They tended to use intellectual defenses at the expense of their emotional development. The defenses met with were the ones common to the obsessive compulsive syndrome:

reaction formation, doing and undoing, denial and isolation. In short, the ego is caught between the forces of the id and superego. In these children their normal healthy drives and inhibitions became exaggerated and out of proportion, and their behavior thus appeared irrational and frequently bizarre and ineffectual. Although not stressed by the mothers, there frequently seemed to be a depressive element with weeping and crying.

Seven boys and 4 girls received treatment at the clinic, generally for one year. However, several children are currently in their second year of treatment. The 4 girls showed improvement as did 4 of the 7 boys. Of the other 3 boys, one showed uncertain improvement with poor prognostic expectations at the end of treatment. Another schizophrenic boy had to be hospitalized and the third boy, seen on periodic consultation over a number of years, remained unchanged. Treatment was usually on a supportive level. Their defenses were seldom, if ever, directly attacked. Much of the progress in therapy was due to the relationship established and the scrupulosity itself did not become much of an issue in their treatment. Medication: Thorazine, Compazine or Miltown, was occasionally used to tide them over their acute episode. However, initial psychotic episode, if any, was short lived and quickly dropped. They were usually able to wall off this episode.

From treatment as well as follow-up studies we see that the children were usually able to continue to function and make a fairly adequate adjustment. The recent follow-up study in which 17 of the scrupulous children were contacted, showed that they continued in high school or have graduated. Six are presently in college, and most of them continue to function on a better than average academic level. Two of the girls are married and one boy has just returned from 2 years in the army. Of 4 girls, one is a stenographer, one a typist, one an accountant and one a bookkeeper. The mothers of these youngsters still have difficulty in seeing their children's scrupulosity as an emotional problem. Many of these children still have difficulty in making a comfortable social adjustment.

SUMMARY

In this paper, a clearer picture of severe chronic scrupulosity as a pathological condition is presented. Children actually referred to a child guidance clinic for their scrupulosity are seriously disturbed. What became clear to us was that the scrupulous children presented a consistent picture in terms of symptoms and underlying personality traits. It usually appears as an obsessive compulsive disturbance involving fears and doubts. However, the constriction and inhibitions of these scrupulous children were frequently indicative of a schizoid personality and, in some instances, of an underlying schizophrenic matrix. This consistent picture of the scrupulous child which emerged from our research, enabled us to obtain a more immediate and fuller understanding of any new child referred to our clinic for his scrupulosity, and to work with the scrupulous child in a more confident and effective manner.

BIBLIOGRAPHY

1. Allers, R.: *The psychology of character.* (Trans. by E. B. Strauss.) New York: Sheed & Ward, 1939.
2. Doyle, T. L.: *The problem of scrupulosity in pastoral work.* In *Proceedings of the Fordham Institute for the Clergy on Problems in Pastoral Psychology*, 75-85. New York: Fordham University, 1956.
3. Eissler, K. R.: *Searchlight on delinquency.* International Universities Press. New York: 1949.
4. Emyieu, A.: *L'Obsession et Le Scruple*, (33rd ed.). Paris: Libraririe Academique, 1933.
5. Fenichel, G.: *The psychoanalytic theory of neurosis.* New York: Norton, 1945.
6. Janet, P.: *Les obsessions et la psychasténie*, (2nd ed.). Paris: Alcan, 1908.
7. Mahoney, Vincent P.: *Bull. of the Guild of Cath. Psychiat.*, 5: 2, 1957.
8. Mailloux, N.: *The problem of scrupulosity in pastoral work.* In *Proceedings of the Fordham Institute for the Clergy on Problems in Pastoral Psychology*, 53-65. New York: Fordham University.
9. McGowan, A.: *Psychological aspects of scrupulosity.* Unpublished M.A. dissertation, Fordham University, 1937.

10. Moore, T. V. : Personal mental hygiene. New York : Grune & Stratton, 1952.

11. Mullen, J. J. : Psychological factors in the pastoral treatment of scruples. *Studies in psychology and psychiatry*, 1927, 1, No. 3.

Washington, D. C. : Catholic University.

12. Riffel, Pius Anthony : The detection of scrupulosity and its relation to age and sex. Unpublished M.A. Dissertation. Fordham University. New York : 1958.

ADJUSTMENT OF EIGHTY DISCHARGED GERIATRIC-PSYCHIATRIC PATIENTS¹

MORSE P. MANSON, Ph.D., AND CARLTON L. ENGQUIST, M.S.W.²

It is felt by professional workers in medicine, psychology, nursing, social work and rehabilitation, that older patients encumbered with severe physical and psychiatric illnesses, as are many of the chronic patients in the Veterans Administration Hospitals, have little chance of returning to family and community living, *unless they are provided with the appropriate professional assistance, carefully prepared, and consistently helped to adapt themselves to some form of community living.*

The validity of the belief that chronically ill, geriatric-psychiatric patients, receiving appropriate assistance could make satisfactory and satisfying adjustments outside an institutional setting was subjected to critical analysis in this study.

At the VA Hospital, Sepulveda, California, a 100-bed geriatric-psychiatric service has been in operation since 1955. Initially the staff, because of the complexity of their patients' problems, had many reservations concerning the ability of these long-term geriatric-psychiatric patients to adjust to settings other than chronic hospitals. In November, 1957, the treatment program was intensified and increased emphases were placed on more active therapeutic and rehabilitation techniques. Eighty patients were discharged. The follow-up study concerns these 80 patients.

GROUP CHARACTERISTICS

All were males, veterans, and formerly patients in the above geriatric-psychiatric service.

Age: The age range for the group discharged was 26-82 years; the mean age was 62.3 years.

Race: The discharged group was 99% white and 1% non-white; the remaining group was 95% white and 5% non-white.

Marital Status: Marital status percent-

ages of the discharged and remaining groups showed one significant difference at the .01 level of confidence: a larger number of divorced men were in the discharged group than in the remaining group.

Number of Diagnoses: The mean number of diagnoses of the remaining group was 2.4; that of the group of discharged patients was 2.0.

Diagnoses: Of the discharged patients, 85% carried a diagnosis of "psychosis"; 35% had "chronic brain syndrome"; 13% were considered "incompetent"; 11% had "cardiovascular disease"; 8% "pulmonary disease." The remaining group had significantly larger percentages of patients with "chronic brain syndrome"; "cardiovascular disease" and "tuberculosis-inactive."

Time in Hospital: The discharged group had spent an average of 21.7 months in the hospital as compared with 26.3 months for the remaining group. The majority of these patients had been hospitalized elsewhere prior to admittance to this hospital. For example, of the 22 patients who had accepted family care placement in this study, 14 had been hospitalized over 10 years. Of this group, 9 had been hospitalized over 20 years; while 4 had been hospitalized over 30 years.

Number of Discharges: The mean number of discharges in the remaining group was .1; that of the discharged group had been 2.0. *Thus the discharged group had received 20 times the number of discharges which the remaining group had received.* It is, of course, obvious that the men in the remaining group were much sicker than those in the discharged group, nevertheless the question arises: Could more discharges have been provided the remaining group, thus exploring the feasibility of living outside the hospital?

Death rate: A comparison was made of the death rate of the 2 groups. The death rate of the discharged group over a period of 44 months was 8%; the hospitalized group had a death rate of 18% over a 39

¹ From the VA Hospital, Sepulveda, Calif.

² Respectively, Chief, Counseling Psychology Services, and Chief, Social Work Service, VA Hospital, Sepulveda, Calif.

month period. Converted to death rate per month this would be .18% of the discharged group and .46% of the remaining group per month.

Number of Places Lived in Since Discharge: Of 67 returns, 43 discharged patients or 66% remained in the original home developed through hospital discharge planning. Thus a large percentage of the total discharge group of 80 patients—at least 53%—adhered closely to the discharge plan developed in the hospital.

Sources of Income: Fifty-three patients indicated definite sources of income. Only 5 questionnaires indicated no source of income. These data show that a large percentage of discharged patients had economic resources available. In a few cases, income was sufficient for full maintenance costs.

Average Monthly Income: Forty-seven returned questionnaires presented the monthly income of discharged patients. The mean monthly income for this group was \$155.00.

Adjustment to Present Living Situation: Ratings were made by the interviewers of adjustments made to patient's present living situation. The scale used included 4 ratings: poor, fair, good, and excellent. Based on a point system of 1-2-3-4, the mean rating for this group was 2.3 closer to "fair" than "good."

Adjustment to Present State of Health: The mean point evaluation was 2.7, somewhat closer to the "good" rating than to the "fair" rating.

Is Patient Receiving Outpatient Medical Care? "Yes" responses to this question was 26%, "No" responses was 74%. When hospital staff was queried regarding the percentage of patients discharged from the geriatric-psychiatric service who would require medical services after discharge, responses ran from 70% to 95%. The finding that only 26% were receiving medical treatment was surprising to nearly all staff members.

Adjustment to Work or Hobbies: The mean point rating was 2.3, closer to "fair" than to the "good" rating.

Is Patient Working? Responses were "Yes" for 33%. It was surprising to find that one-third of these discharged patients were

working, since it was the belief of most hospital staff members that not more than 10% could or would return to work, even to marginal types of work. Not all of those working were receiving wages. It is believed that at least 8 of the 16 working were being paid.

Since the average number of hours worked by each working patient was 19.5 or 975 hours for a 50 week year, it is estimated that a working patient earning the federal minimum wage of \$1.00 per hour, would earn \$975.00 per year. The group of 16 working patients then would earn \$15,600. Since only about 50% of the working group is being paid, the group is earning approximately a minimum of \$7,500 per year.

If Working—what does he do? The 16 discharged patients were engaged in 11 different jobs. In this group were 4 men who worked 8 hours per day, 5 days a week. These findings are very encouraging and point to potentialities within men who present complex geriatric-psychiatric histories.

Adjustment to Social Activities: The mean rating was 2.3, closer to "fair" than to "good."

In Your Opinion Does This Patient Need Hospitalization at This Time? Ninety-three percent answered "No" and 7% answered "Yes." This finding indicates that adequate hospital services had been provided to these discharged patients. It also suggests that living outside a hospital has salutary effects.

What Additional Services Would Improve or Stabilize This Veteran's Adjustments? On the 31 questionnaires which dealt with this question, there were 41 responses. The largest single response—12 or 29%—was "None."

How Long Do You Believe Patient Will Remain Out of Hospital? Eighty-two percent stated patients would remain out of the hospital "Indefinitely."

What Might the Veterans Administration Hospital at Sepulveda Have Done to Make This Patient Better Able to Remain Out of Hospitals? The largest number of responses—23 or 63%—answered "Nothing."

DISCUSSION

A significantly greater percentage of divorced men were included in the discharge group. It is heartening to note that in this group, 6 were over the age of 70 years, and 2 were in their 80's. Approximately 60% were living in protected settings and receiving continued supportive case work help by the hospital or Regional Office social workers.

The discharged group had a mean of 2.0 medical diagnoses. Of these, 85% had been diagnosed as "psychotic" and 35% with "chronic brain syndrome." Being psychotic does not significantly affect hospital discharge. However, brain damage does significantly reduce the possibility of leaving a hospital. The group remaining had approximately twice the incidence of brain damage of the discharged group. There appears to be evidence that cardiovascular disease and tuberculosis (inactive) reduce the chances of leaving a geriatric-psychiatric service. The combination of brain damage, cardiovascular disease, and tuberculosis (inactive) suggests that the older patients who require considerable physical attention have fewer chances of making acceptable adjustments outside the hospital than do patients with minimum physical needs but with psychoses. In further support of this observation, experience in this hospital shows that the geriatric-psychiatric patient returns to the hospital in the majority of cases for medical reasons rather than for psychiatric conditions, even though he may have been originally hospitalized for psychiatric reasons.

A psychotic patient who can provide self-care is much more acceptable to his family or other families than is the non-psychotic who needs personal physical attention. This conclusion is strengthened by noting that even the classification of a patient as "Incompetent" does not affect discharge possibilities: 15% of the remaining patients were considered as incompetent against 13% of discharged patients.

The discharged group had an average of 4.6 months less hospital time than did the remaining group.

On the average, the discharged group had received 2.0 discharges, while the remaining group had received .1 discharges, and 88%

of the remaining group never had received a discharge. The subject of hospital discharges calls for further research. It is highly desirable to explore intensively new approaches to discharges and different kinds of discharges, particularly for patients who require limited physical care.

Greater community involvement in the treatment of geriatric-psychiatric patients is needed so that more of these patients have opportunities for leaving the hospital, even for short periods, to meet with non-patient groups, and engage in community activities whenever possible.

An analysis of the death rate was made to determine if there was justification for the beliefs of some that exposure of these geriatric-psychiatric patients to the outside world would prove dangerous. The 8% death rate for the discharged patients as against the 18% death rate of remaining patients *per se* indicates that being discharged does not increase the incidence of death.

One of the several encouraging findings was the movement of these discharged patients into 30 different communities. Sixty-three percent of the discharged patients settled in the Los Angeles or San Fernando Valley, within close reach of the hospital.

About one-third of the discharged group was living with its immediate family, while over one-third was living with foster families. Thus over two-thirds of the discharged group had returned to family settings, rather than to institutional settings or to living by themselves. For most of these patients a return to a family setting was a realistic goal.

Another encouraging finding was the stability of the discharge plans developed within the hospital setting. Of the 67 returned questionnaires with data regarding the number of places lived in since hospital discharge, 44 or 66% indicated no moves had been made and the discharged patient was living in the home or setting developed with him while he was hospitalized. This finding points to the importance of the social worker in laying the groundwork for realistic discharge plans with responsible family members and the patient.

Perhaps the most unexpected findings were those dealing with health, medical

care, and the need for hospitalization. The greatest amount of concern and uncertainty on the part of the staff existed in these areas. The findings of this study, however, point clearly to the ability of these discharged patients to maintain their well-being and even reduce the amount of medical services they once had required.

Only 26% was receiving outpatient medical care. Only 7% seemed to be in need of further hospitalization at the time of the interview.

Considering the type of patients composing the discharge group, it is encouraging to discover their ability to maintain themselves relatively free of direct medical or hospital service. The conventional belief is that geriatric-psychiatric patients require long-time and extensive medical-psychiatric attention. Because of this belief, movement of such hospitalized patients often is retarded by excessive concern over discharge planning, and resistance to moving them. In many cases, the potentialities of such patients are grossly minimized or completely disregarded.

It is well-known that the geriatric-psychiatric patient, after long-term hospitalization, develops strong resistances to change or movement; this is especially true when he is faced with leaving the protected environment of the hospital to return to community living, which he often looks upon with doubts and fears. Careful discharge

planning, which includes the patient at each step of the way, enables the patient to accept, often on a trial period, living outside the hospital.

Experience points out that the chronic patient who has had an opportunity to live outside the hospital, even for a short period, has a better chance for developing and carrying out sound discharge plans which will keep him out of a chronic hospital than has the patient who has never made such an attempt.

In view of the above findings, resistance to the movement of geriatric-psychiatric patients from a hospital setting to a home or community setting, in many instances seems to be unwarranted, and actually anti-therapeutic. Where limited movement of patients exists, a definite need for greater effort in the development of realistic discharge plans seems indicated. Limited movement of patients often suggests that staff members are in need of training and clarification of treatment objectives.

In brief, these findings indicate that the discharged group of geriatric-psychiatric patients was happier, healthier, more productive, more gainfully employed, and more active socially than when hospitalized. Life outside the hospital stimulated these men to live fuller lives and reduced their medical needs. Life outside a hospital appears not to have increased the death rate for this group.

SOME PSYCHOLOGICAL ASPECTS OF ISOLATED ANTARCTIC LIVING¹

CAPTAIN CHARLES S. MULLIN JR., (M.C.), U.S.N.²

When Byrd went to the Antarctic in the twenties he is said to have taken along, in addition to two coffins, an even dozen strait jackets. This pessimistic precaution turned out to have been unnecessary, but does suggest the respect that even experienced explorers have had for the psychological vicissitudes of isolated polar living. To be sure, conditions at isolated United States I.C.Y. Stations in the Antarctic are different from the time of the early explorers. There is less danger and hardship, better communication with the outside world, and (possibly) better selection of personnel. (At least there is more psychological professionalism applied to the problem of selection today.) Nonetheless, for most individuals the business of living for a year in an isolated polar station still makes serious demands on adaptive resources.

Here is the situation. A small (12 to 40) group of volunteers of widely varying interests and backgrounds (scientists, officers, and enlisted personnel) are thrown together in close personal association and isolated from all other society for a large part of a year. Most of life is lived indoors except for the lucky few who may go out on "traverses." For 7 or 8 months of the year, there is no communication with the outside world except by radio, and for several months of the winter there is 24 hours of darkness. During this time the physical milieu, the routine of life, and the small exclusive society is, of course, characterized by an inevitable sameness and monotony.

There is much interest these days in the psychological effects of isolation, in part perhaps, because of current fantasies about space travel and planetary exploration. Accordingly, this review of effects of voluntary

isolated group living, in a non-experimental situation, may be of interest.

The present study was based on interviews conducted "on the ice" with some 85 personnel who were nearing the end of their wintering-over period at a number of smaller, more isolated stations. The interviews were conducted by 2 psychiatrists and 2 psychologists, during two visits to the Antarctic on successive years. The interviews lasted from one to several hours, and in many instances the subjects were interviewed separately by two members of the team. The goodwill and frankness of the interviewees was impressive. In some instances there was a mild initial xenophobia, but this was invariably quickly replaced by a spirited degree of cooperativeness that in many cases suggested a compulsive eagerness to communicate.

OBSERVATIONS

1. *Danger, Hardship and Cold.* Danger, hardship, or the direct effects of cold did not represent important stresses. Indeed, the absence of much hardship and danger, and the relative luxury of living conditions, were sources of considerable disappointment and disillusionment for many of the younger and more romantically inclined members.

2. *The Main Stresses.* The major stresses appeared to be: (a) The problem of individual adjustment to the group, (b) the relative "sameness" of the milieu, and (c) the absence of many accustomed sources of emotional gratification. Undoubtedly, it was the interaction of these stresses that produced the effects observed: but, in the production of a given effect, one of these classes of stress might be more determinant than another.

3. *Hostility.* We were impressed by the relative absence of overtly expressed hostility. At most of the smaller stations visited, fights and angry arguments were remarkably rare, considering the conditions of living described above. Group and individual tensions and irritations are ever pres-

¹ Read at the 116th annual meeting of The American Psychiatric Association, Atlantic City, N. J., May 9-13, 1960.

² Medical Department, U. S. Naval Academy, Annapolis, Md.

ent, but the most important lesson a win-tering-over man learns is that he cannot afford to alienate the group; that in this tight little society he is dependent in large measure upon the goodwill of the next man and of the group as a whole for his vital feelings of security, worth and acceptance.

4. *Headaches.* Probably related to this phenomenon of controlled aggression was the rather extraordinary frequency of headaches, since it is generally assumed that there is often a relationship between "inadequately" expressed hostility and the occurrence of headaches, and since no primarily physical cause could be ascribed. It was interesting that these headaches seemed to affect the officer-civilian group more than the enlisted contingent. The enlisted men had various ways, acceptable to the group, for expressing their hostile-tensions, for example: vigorous horseplay; loud complaining without too much rancor; swearing; and an interesting technique of exchanging insults, often quite personal and to the point, but rarely reacted to with much, if any, anger, as if there were a tacit mutual recognition of the function of the exchange. The more sophisticated officer-scientist group were both more limited in the effective techniques available and were perhaps under a greater self-imposed necessity for careful control of their aggression; hence their preponderance for headaches.

5. *Insomnia.* Varying degrees of sleeplessness was a fairly wide-spread phenomenon, but confined almost exclusively to the dark winter season, rather than to the summer period of 24 hour brightness. It affected men who had never before had difficulty in sleeping. At one small New Zealand Station, everyone in camp was a member of the "Big Eye" Club. The only qualification for membership was insomnia. The rules of the club were simple. You were expected to retire, but if efforts to sleep were unsuccessful, you could then join the club session in the common room, sitting about reading, chatting, playing cards until you felt sufficiently tired to try the sack again. The causes of the "Big Eye" (the term widely used in the Antarctic for the insomnia problem) are not entirely clear, but seem related to such factors as the ac-

cumulation of group and personal tensions, the reduced physical activity of the dark winter period, and group suggestibility. Some men commented that although they felt tired, even exhausted, at the same time they felt restless and unrelaxed when they endeavored to find sleep. Several researchers (1, 2) have observed that a more or less intense desire for stimuli and action is an effect of the experimental isolation experience. Perhaps a conflict between a desire to sleep and a need for action has some bearing on the "Big Eye" problem.

6. *Intellectual Inertia.* There was a curious and widespread lack of intellectual energy which was manifested most severely during the months of winter, i.e., after several months of isolation. The majority of personnel had come to the Antarctic planning to carry out certain "extra-curricular" projects. The intention might be to learn a language, do some "serious" reading, accomplish batches of correspondence courses, write articles, learn to play a musical instrument, etc. Rarely were the original plans realized; and, in the majority of instances, although there was plenty of time available, very little was done in the direction of even making a good start on the project. Although reading was a fairly widespread spare time occupation, usually the class of reading done was of a "lower" order than that characteristic of the individual's usual interests and taste.

7. *Impaired Memory and Concentration.* Akin to the phenomenon of intellectual inertia was the finding of impaired memory, alertness and concentration. This was again manifested most obviously during the winter. Many were not appreciably affected, but at one isolated station this impairment of memory and mental acuity affected about one-third of the camp in varying degree, from unwonted absentmindedness to the occurrence of mild fugue states. Impairment of mental acuity and the capacity for sustained mental effort has been noted by many observers in isolation experiments in the laboratory (1, 2). It is probable that the intellectual anergia and impaired alertness reported here bear some relationship to the factor of prolonged exposure to "sameness"—the same few faces and personalities, the same limited physical milieu, the same rela-

tively simple routine of life—plus a long period of limited physical activity and mobility; or, in short, the effect of the reduction in the amount and variety of meaningful sensory stimulation over a prolonged period of time.

8. *Appetite.* As might be expected, "oral" needs were enhanced, presumably because of tensions that could not be readily expressed, and because of the absence of other basic gratifications. Appetite and consumption were enormous, and weight gains of 20 or 30 pounds during the year were not unusual. When the cook was adequate to the challenge, his prestige was of course enormous.

9. *Sexual.* It is axiomatic that no area of human functioning is more subject to distorted reporting, exaggeration, suppression and repression than the area of sex, and the following observations are based, of course, largely on what we were told by the men. However, it appears that these generalizations may have some validity. Isolation from women was not, in itself, a serious problem; or, more accurately, was not a matter of conscious yearning, erotic or otherwise, except perhaps for a very few individuals very early and very late in the year, or in a few instances during periods of personal emotional stress. With respect to sex dreams, nocturnal emissions and masturbatory activity, the following impressions were gained: (a) There was a slight general tendency to increased frequency; (b) this increased frequency was more apparent during periods of relative inactivity and personal emotional stress, and towards the end of the tour (the question of reawakened fantasies). With respect to evidences of inversion trends, there were no indications of any overt homosexual practices, scandal, or gossip, although, as might be expected, there were indications here and there of mild covert manifestations throughout the group. For one thing, privacy was at a premium. But, perhaps more importantly, the "risk" to the vital need for group acceptance was too great.

10. *The Absence of Usual Sources of Emotional Gratification.* For the group as a

whole, nostalgia was not a problem, as a felt experience; and separation from home, wife, family, and familiar situations of the man's personal "civilization" was rarely a subject of any serious continuing preoccupation. However, most agreed that the absence of these supportive influences increased the burden of their adaptation. As already indicated, the evidence suggested that sexuality was repressed and substitutive oral satisfactions were ascendant. On the other hand, for a few men it was obvious that separation from home, wife, children, and family responsibility, meant for them the subtraction of an element of stress in their personal adjustment.

11. *"Long-Term" Effects of the Experience.* A few "old salts" and a few scientists who had previous isolation experience felt that they had experienced no great changes within themselves. However, the majority felt that something good had happened to them that they hoped and believed would endure. This was expressed in various ways, as for example, more self-discipline, greater adaptability, more tolerance, more patience, more understanding of self, and more understanding of the other man. However, not one man interviewed was unambiguously desirous of repeating the experience.

SUMMARY AND CONCLUSIONS

Some psychological effects of isolated group living in the Antarctic are described. It would appear that the cold, danger, and hardship are not major stresses. The most important psychological stresses appear to be: First, the problem of individual adjustment to the group; second, and more subtly acting, the relative "sameness" of the milieu; and third, the absence of certain accustomed sources of emotional satisfaction.

BIBLIOGRAPHY

1. Bexton, W. H., Heron, W., and Scott, T. H.: *Canad. J. Psychol.*, 8: 70, 1954.
2. Lilly, J. C.: *Mental Effects of Reduction of Ordinary Levels of Physical Stimuli on Intact Healthy Persons*. *Psychiatric Research Reports*, 1956, No. 5.

BRIEF OBJECTIVE MEASURES FOR THE DETERMINATION OF MENTAL STATUS IN THE AGED¹

ROBERT L. KAHN, Ph.D., ALVIN I. GOLDFARB, M.D.,
MAX POLLACK, Ph.D., AND ARTHUR PECK, M.D.²

In the process of conducting a survey of institutionalized aged persons for the Office of the Consultant on Services for the Aged,³ it became evident that the problem of mental disorder in this population was related to organic brain damage. For this reason, it was considered desirable to develop brief, objective, and quantitative measures of mental functioning related to cerebral impairment. The purpose of this paper is: 1. To describe the procedures that were utilized, 2. To explain their rationale, 3. To show the results obtained to date, with particular reference to their validity, and 4. To indicate the potential further usefulness of these procedures.

METHOD

Two psychological tests were used in this study, the mental status questionnaire (MSQ) and the face-hand test.

The Mental Status Questionnaire: This consisted of a series of 31 questions covering such areas as orientation, memory, calculation, and general and personal information. These questions were drawn partly from standard mental status examination procedures, and partly from recent special investigations of patterns of altered behavior with cerebral dysfunction(1).

¹ Presented at Downstate Interhospital Conference, New York State Department of Mental Hygiene, March 29, 1960.

² Respectively, Research Psychologist, Consultant, Research Psychologist and Research Psychiatrist, Office of Consultant on Services for the Aged, Queens Village 27, N. Y.

³ Sampling procedures for the survey were planned and supervised by Julius A. Jahn, Ph.D. Research activities were coordinated by Helen Turner, M.S., with the assistance of Syra Cohen, B.S. The psychiatric examinations were done by Kenneth Altshuler, M.D., Morton Aronson, M.D., Martin Barad, M.D., Arthur Peck, M.D., Vincent Squilla, M.D., and Robert Shapiro, M.D. Physical examinations were made by and under the direction of Isadore E. Gerber, M.D. The epidemiological aspects of the study were coordinated by Israel Gitlitz, M.D. We are grateful to the hospitals and the homes who participated in our survey and who made our studies possible.

From the total questionnaire, 10 items were selected as the most discriminating and used for the quantitative determination of mental status. These items were: 1. What is the name of this place? 2. Where is it located (address)? 3. What is today's date? 4. What is the month now? 5. What is the year? 6. How old are you? 7. When were you born (month)? 8. When were you born (year)? 9. Who is the president of the United States? 10. Who was the president before him?

While these questions themselves are familiar enough, our procedure insured that the same questions, worded in the identical fashion, would be asked of everybody. Secondly, by obtaining a score based on the number of errors in response to these 10 questions, a quantitative index of mental functioning was provided.

The Face-Hand Test: This test was first described by Fink, Green and Bender(2) as a diagnostic procedure for brain damage. The test consists of touching the patient simultaneously on the cheek and on the dorsum of the hand, and asking him to indicate where he was touched. Ten trials are given: 8 face-hand combinations divided between 4 contralateral (e.g., right cheek and left hand) and 4 ipsilateral (e.g., right cheek and right hand) stimuli, and 2 interspersed symmetric combinations of face-face and hand-hand. After the second trial, if the patient only reports one stimulus, he is asked, "Were you touched anywhere else?" in order to give him the concept of twoness. If the patient fails consistently to locate both stimuli correctly within the 10 trials, he is classed as positive. The main types of errors are extinction, in which only 1 stimulus is indicated (almost always the face), and displacement, in which 2 stimuli are indicated but 1 of them, generally the hand stimulus, is displaced to another part of the body (e.g., if the person indicates both cheeks when the face and hand were actually touched). A patient is

rated negative if he is consistently correct within the 10 trials. Frequently he makes an error on the first 4 trials, but is consistently correct after perceiving the 2 symmetric stimuli.

The face-hand test was first given with the eyes closed and then, if the individual showed a positive reaction, was repeated with the eyes open. Since it was found that in about 90% of the cases the response under the two conditions was identical, the response with eyes open has been used in our analysis of data.

The face-hand test was considered a desirable procedure for this survey, not only because of its established value as a test for cerebral dysfunction, but also because it is relatively "culture free," being an unlearned perceptual task. It has the further advantage of being usable with patients who don't speak English very well or present some other problem in verbal communication.

POPULATION

The population sampled consisted of 1,077 patients residing in homes for the aged, nursing homes and state mental hospitals located in New York City. The individuals included were those who were 65 years of age or over at the time of first admission to the institution, and in residence as of a given month during the survey period of March to November, 1958.

Both the institutions chosen for study and the persons tested within each institution were selected by random sampling. All 3 state hospitals in New York City were sampled, with a total of 169 patients examined. Of the 102 proprietary nursing homes registered by the Department of Hospitals in January, 1956, samples were drawn from 13 and 426 persons examined. Nine of the 49 homes for the aged listed by the Community Council of New York City in 1957 were sampled, with 482 residents examined.

PSYCHIATRIC EXAMINATION

Each person was also examined by a psychiatrist within a 1 month period of the psychological examination. The psychiatrist, on the basis of a conventional psychiatric interview, assessed each person for the

presence and degree of chronic brain syndrome, the presence or absence of psychosis associated with chronic brain syndrome, the presence of other types of psychiatric disorders, the degree of management problem, and whether or not the person was certifiable.

RESULTS

1. *Chronic Brain Syndrome.* There was a marked relationship between the psychiatrists' evaluations of the presence and degree of chronic brain syndrome and the results of the two psychological procedures.⁴ Ninety-four percent of those making no MSQ errors were rated as having none or mild chronic brain syndrome. In contrast, of those with 10 MSQ errors, only 5% were rated as none or mild, and 95% were considered to have moderate or severe CBS. Between these two extremes there was a linear progression, with increasing number of errors associated with more severe CBS rating.

The results are similar for the face-hand test. Seventy percent of those negative on this test were rated as none or mild CBS; a similar rating was given to only 27% of those who were positive.

2. *CBS with Psychosis and Certifiability.* There was a relationship between the psychiatrists' ratings of psychosis in association with CBS and of certifiability to the psychological tests. Of those making no MSQ errors only 3% were rated as CBS with psychosis, in contrast to 75% of those making ten errors.

The certifiability ratings follow the same pattern, with 5% of those with no errors evaluated as certifiable, with a gradual increase with increasing error scores until of those with 10 errors 89% were so rated.

A similar relationship was shown with the face-hand data. Of those who were negative on this procedure, only 13% were rated as CBS with psychosis and 21% as certifiable. Of the patients who had positive face-hand responses, 50% were considered to have CBS with psychosis and 65% certifiable.

3. *Management Problem.* In their evaluations, the psychiatrists included a rating of degree of management problem, none, mild, moderate or severe. Although a large ma-

⁴ Tables and further data may be obtained from the authors on request.

jority of the patients were rated as none or mild, a relationship was still noted between the MSQ and face-hand test results to the management rating. Of those patients with no MSQ errors, 94% were rated as none or mild management problems. This figure declines with increasing error score, until with a maximum of 10 errors only 52% were so rated, with 48% considered to be moderate or severe problems. On the face-hand test, 67% of those with positive response were rated as no or mild management problems, compared to 83% of those with negative results.

DISCUSSION

These results have shown that the mental status questionnaire and the face-hand test are highly related to psychiatrists' evaluations of the presence and degree of chronic brain syndrome, the presence of psychosis associated with chronic brain syndrome, the certifiability status of the patient, and the degree of management problem.

In a sense, these results establish the validity of the psychological procedures as measures of mental status, using the psychiatrists' ratings as the validating criteria. But it is necessary to keep in mind that the psychiatrists' ratings are more subjective, and with considerable variation in the ratings of different psychiatrists examining similar populations. The 2 psychological procedures, in contrast, provide an objective basis for uniformity of observation and evaluation by different observers.

While there is no doubt that other objective or standardized tests could be adapted or devised which would also be correlated with psychiatric evaluations, the MSQ and face-hand test have the advantage of requiring little time for administration. The brevity and objectivity of these tests also make them desirable procedures for rapid clinical screening and for research purposes. For example, we have already reported a relationship between physical functional status and mental status, using either the face-hand test or the MSQ as the index of mental functioning(3). In another investigation under way of prognostic factors in the institutionalized aged, it has been found that performance on both of these procedures is significantly cor-

related with mortality within a 1 year follow-up period.

We would also like to point out certain limitations of these procedures. They are most useful for eliciting mental change associated with chronic brain syndrome, but are very limited in picking up other kinds of psychiatric disorders. Secondly, the tests measure the behavioral pattern at the time of testing and thus may fail to show impairment in patients with fluctuating mental status.

SUMMARY AND CONCLUSIONS

1. Data are presented on a random sample of 1,077 persons residing in homes for the aged, nursing homes and state hospitals in New York City, who were 65 years of age or over at the time of first admission. Each person was examined by a psychiatrist using a standard interview technique, and by a psychologist who administered two brief tests: the face-hand test, and a 10-item questionnaire testing orientation and recall of personal and general information.

2. The results of both tests were highly related to psychiatrists' clinical evaluations of the presence and degree of chronic brain syndrome, the presence or absence of psychosis associated with chronic brain syndrome, opinion as to certifiability, and degree of management problem.

3. It is concluded that the face-hand test and the mental status questionnaire are valid measures for the determination of mental status in the aged, particularly for disorders associated with cerebral damage.

4. These tests are considered to have a considerable potential clinical usefulness for rapid screening purposes. They provide an objective basis for uniformity of observation and evaluation by different observers. The brevity and objectivity of these tests make them desirable procedures for research purposes.

BIBLIOGRAPHY

1. Weinstein, E. A., and Kahn, R. L.: Denial of Illness: Symbolic and Physiological Aspects. Springfield, Ill.: Charles C Thomas, 1955.
2. Fink, M., Green, M. A., and Bender, M. B.: *Neurol.*, 2: 48, 1952.
3. Kahn, R. L., Goldfarb, A. I., Pollack, M., and Gerber, I.: The Relationship of Mental and Physical Status in Institutionalized Aged Persons. *Am. J. Psychiat.*, in press.

PRESENT DAY CONCEPTS IN NURSING SERVICE ADMINISTRATION IN HOSPITALS FOR THE MENTALLY ILL¹

GRANVILLE L. JONES, M.D.,² AND ANGIE F. WALDRUM, R.N., B.S.³

Ever since that forgotten day, probably in the Old Stone Age, when some sick or injured friend was made comfortable, fed and protected while he recovered, the practice of nursing has attracted attention. It has grown from a simple individualistic endeavor into a highly complex and technical profession. With the revolutionary changes in mental hospital practice in the last decade or two, much more is being expected of nursing than ever before. Furthermore, despite a substantial increase in nursing personnel in the last 10 years, most of our mental hospitals are still far below the minimum standards of the American Psychiatric Association (10, 13). It is evident that we do not now have, and will not have in the discernable future, enough people in our hospitals to do our job properly, if traditional methods and practices continue. It is imperative, therefore, that we utilize the personnel we have much more fully and efficiently than we have been doing. It is because of a conviction that administrative organization and practices can contribute to this end that this paper is being presented.

THE NATURE AND PURPOSE OF ADMINISTRATION

To some professional persons, administration is viewed as something apart from professional practice, something a little less worthy of one's time and attention, something to rebel against and resist (3). This should not be. Administration properly understood, is an extension of our professional arms. It has been defined as "the integrating factor in group effort," (4) as "the marshalling of resources to accomplish a purpose" (1). With special application to

nursing service, it could be described as "a co-ordinated system of activities which provides all facilities necessary for the rendering of nursing care to patients" (1). With the modern American genius for division of labor and for organization, it is not surprising that in recent years a vast amount of time and attention has been spent on the problem of administration.

A recent report, in speaking of hospital administration, states that it

Demands a recognition of the human element and an awareness and appreciation of the attitudes, motivations and incentives in other people . . . a leadership skill in persuasion and adjustment which maintains control while permitting and encouraging individual expression and participation (4).

This description is not peculiar to the hospital administrator but applies with equal force to the nursing administrator. The nurse, by virtue of her position, is in between the patient, the physician, the public and other personnel and must perform many functions with an independent skill on demand by others who set the time and place and indicate the objectives.

It has been said that the philosophy and practices in any mental hospital reflect the personality and attitude of the superintendent. The selection, indoctrination and training of the staff and key personnel give the superintendent the opportunity to build an organization sympathetic toward his own ideas (3). However, the day of the "one man show" is rapidly disappearing. The administrator must still make the decisions, but modern concepts have made it important for all personnel to have an opportunity to participate in the formulation and statement of the philosophy, objectives and standard practices, and to advise on execution and action.

The Superintendent of Nurses in turn sets the climate through which nursing personnel will either be "people-centered" or will be "self-centered." The methods used in

¹ Read at the 116th annual meeting of The American Psychiatric Association, Atlantic City, N. J., May 9-13, 1960.

² Superintendent, Arkansas State Hospital, Little Rock, Arkansas.

³ Chief, Nursing Service, Consolidated Veterans Administration Hospital, North Little Rock Division, Little Rock, Arkansas.

getting things done through people are the responsibility of the Superintendent of Nurses. In the process of organizing, the contribution of each member is properly identified and defined in terms of functions(5, 7, 8). Organizational planning is a distinct component of management, but once accomplished should not be regarded as fixed or final. If we stay "people-minded," new responsibility, changing work loads and new therapeutic programs in medicine have implications for nursing which may affect even the basic organizational structure. No amount of budget, additional equipment and supplies, procedural changes or personnel can completely offset faulty organization.

The administrator of nursing service must have faith and confidence in the nursing personnel through whose development nursing will improve(9). Problems are solved through consultation with the workers concerned rather than by the issuance of mandates. The persons to be affected are given the opportunity to participate in formulating plans. This technique facilitates change, has a maturing effect on human relations and is a motivating influence for all personnel toward an efficient and enthusiastic accomplishment of their jobs.

The nurse administrator must be willing and able to delegate authority to the appropriate level, to grant the right to plan and act without interference. This does not mean giving up control. Controlling is made up of two elements, organizational structure and supervision. Controlling requires good supervision but not necessarily centralization of authority. It most certainly requires proper delegation of authority and assignment of responsibility. It includes sound organization structure; which makes it possible for groups to work together as effectively as the individuals would work alone.

To restructure the administrative organization from the traditional to the creative and permissive type requires time, tolerance and confidence. It requires remotivation, re-emphasis of individual values and continuous review of present day philosophies of patient care.

In building this democratic organization, the administrator has the responsibility of

interpreting this plan so as to make it possible for each to play his role in implementing the plan. A democratically run structure does not mean a structure without leadership. The following expresses this point

Leadership need not be authoritarian. A leader can assist in defining goals without categorically imposing them; he can discuss alternative methods of proceedings without ordering them; he can encourage spontaneity and individual difference without fostering anarchy; he can give support and approval without creating dependency(2).

NURSING SERVICE ADMINISTRATION A PART OF THE WHOLE

Nursing service does not function in a vacuum but is an integrated part of the whole hospital program. Nursing is a part of medical care and the nursing care goals must be in line with other medical goals for patients. However, effective care of patients also requires cross communication, planning and co-ordination with other hospital departments, such as: supply, engineering, personnel, housekeeping, registrar. The nurse administrator is a part of management and participates in setting philosophy and objectives. She projects needs for adequate budget for personnel, supplies and equipment. She anticipates needs in the expansion of service. She is responsible for evaluating the program and reducing and controlling costs accordingly. She may be a member of a co-ordinating committee which plans and co-ordinates hospital activities(1, 2, 3).

Today a large portion of the patients are on full or partial privileges and our program of activities is a complex and ever-changing problem. Nursing service is concerned with the patient 24 hours a day and of necessity must co-ordinate its activities with those of the medical staff, physical medical rehabilitation personnel, special service personnel and others, all demanding the time of the patient. Unless careful planning is done by the co-ordinating committee, the patient may find himself moving about solely for the convenience of personnel(6, 11, 12).

The National Joint Commission for the Improvement of Patient Care has recommended that hospitals set up patient care committees, to be composed of mem-

bers of medical staff, nursing staff and hospital administration. Equally important is representation from dietary, admitting, social service. These and other departments may not always be regular members but should be invited to attend when matters are discussed that concern their departments.

Following this same pattern, nursing service may organize a Nursing Care Committee which functions similarly to the Patient Care Committee to bring the planning directly to the personnel on the nursing unit and the patients themselves. The membership would include assistant directors, supervisors, head nurses, staff nurses, practical nurses, nursing assistants and/or hospital aides. Here again, representatives from other departments may be invited to participate as related problems arise, such as medical, dietary, social service, psychology.

Another important committee in a well organized nursing service is a Staff Development Committee, in which the leadership comes from the Director of Nursing Education. Here again the membership is representative of all organizational levels, giving them a part in planning for in-service needs for their specific levels. This is an example of the principle that when personnel have a part in problem solving and policy making, they will be more willing to carry out plans.

We strongly believe that while nursing service and nursing education may be separate departments, they should operate under the leadership of the Director of Nursing. In this way the programs in nursing education are geared to meet the needs of nursing service personnel so that they may in turn meet the needs of patients(3).

PEOPLE CENTERED SUPERVISION

An essential adjunct to management of nursing service is an organized program of supervision. It sets lines of authority, points ways to delegation of authority and gives everyone a specific place in the organization with each employee having one immediate supervisor. An organization chart is essential. Because changes take place and accumulate, periodic re-examination of a department's operations are important. The organizational chart can also be helpful to

nursing service personnel to discover how their efforts are related to the work of persons in other departments. The nursing staff needs to develop a comprehensive perception of the hospital's operation(3).

The organizational plan is also the key that opens the way to the delegation of authority all down the line to the immediate supervisor of each employee. Here we learn to whom and for whom we are responsible. As we move more and more toward decentralization of authority, we must select people carefully for designated positions and permit them to carry out their functions with little interference within a control system. This points to the importance of the selection of the right person for the right place. Here administrative skill becomes an art in which we meet the nurses' needs, and motivate the nurses to meet patient needs. Placement of a nurse in a specific job for which she is suited and helping her grow is an important device in stabilization and retention of nurses for psychiatric hospitals.

COMMUNICATION

Effective communication involves more than words; machinery must be set up for getting communications up, down and across. This includes keeping informal, as well as formal, channels open and functioning. There is a need to build adequate follow-up machinery, to shepherd information through to the final step. The feed-back received from communication determines the effectiveness of the communication efforts. Some of the factors in an organization affecting communication are: first, the choice of media, such as, word of mouth, bulletins, house organs, memoranda; second, timing; and, third, the relationship between the sender and receiver in terms of status, position, *etc.*(1, 2, 3, 6).

The greatest factor in communication, however, is the human element. An understanding of the basic process of interaction between individuals is essential for effective communication.

People come from different backgrounds with different value systems and beliefs. The individual behaves in various ways depending on how he feels about his place in the organization. If he has had a voice in

making decisions, he accepts information and orders more readily.

THE PLACE OF THE PROFESSIONAL NURSE

The professional nurse is responsible for the nursing care of patients. This is unalterable, fundamental and permits no exceptions. This is required by the Joint Commission on Accreditation of Hospitals, by the American Psychiatric Association and by the Veterans Administration (8, 11, 12). Since the professional nurses constitute only a small percentage of total nursing service personnel, most of the day-to-day care is rendered by practical nurses, technicians, aides, nursing assistants and attendants. Because of the greater depth and scope of her education the nurse is prepared to accept the responsibility of total care. Every professional nurse in the mental hospital must function as a supervisor no matter what her rank or title. There is no one else in the whole psychiatric setting who is in such a position for co-ordinating all the efforts of various disciplines to meet the needs of the patient.

It is more important today than ever before for the nurse to be able to carry on intelligent and successful liaison between the patients and the various disciplines who have responsibility in their care. It is the professional nurse, the leader of the nursing team, who more than any other person creates the atmosphere of patient care. Through her leadership the patient is respected as a person with individual needs; she realizes the importance of maintaining the dignity of the patient. She also understands the psychological importance of the physical environment to the patient.

Recently there is a changing attitude toward all the activities that rightly should be thought of as belonging to the professional nurse. She is an administrator, teacher, counselor, supervisor, and therapist. The responsibilities of the professional nurse are both administrative and educational in nature, regardless of whether she is a supervisor, head nurse or staff nurse.

Since it is impossible for the professional nurse to carry personally the entire administrative and teaching load in nursing service, the delegation of duties and responsibilities to others becomes most im-

portant. Responsibility for supervision is involved in all the professional nurse's many duties; the greatest of these is the supervision of the non-professional worker. Plans may be carefully made with allied services for the patient, orders well written, clear and up-to-date, duties delegated, and still nursing care has the tinge of custodial care. Good nursing is therefore dependent upon the professional nurse knowing her patients, the care they are receiving and its results.

IN-SERVICE EDUCATION

The nurse administrator's greatest asset for improved nursing care is a dynamic and democratic in-service program. In-service education stimulates the growth of the nurse after she is on the job. The nurse has needs which are not met on a pre-service level as a student, or she has needs that are different from other hospitals in which she has worked, even as a psychiatric nurse. Perhaps the curriculum in her school was "What, When and How to Do," instead of being based on broad, general principles and preparation that enables her to function as a professional nurse in whatever nursing situation she may find herself (3, 11, 12).

The dynamic professional nurse will survey the area she is responsible for and will seek guidance from her supervisor and personnel in the nursing education department as to possible ways and means to improve nursing care. Usually this is accomplished in the following order: through nursing care plans, nursing care conferences and nursing care assignments.

In a nursing care plan, the doctor, nurse and ward personnel identify the philosophy, objectives and goals that may be realistically met for the patients for whom they are responsible. For example, the philosophy, objectives and goals for a geriatric ward would have a different emphasis from those of the acute and intensive treatment area.

The nursing care conference does more than anything else in changing attitudes and feelings toward patients that have been in the hospital for many years. Emphasis is placed on present needs and behavior, not on what the patient was like ten years ago. This group planning for nursing goals for patients is the most effective way of getting ideas from the total group.

When the two preceding phases have been established with a positive approach the assignments in patient care become meaningful and purposeful and they are accepted with interest and enthusiasm. When these three steps are implemented you find counseling, evaluations and ward administration improving far beyond your expectations, as your whole program is people-centered.

SUMMARY

The present day concept in nursing service administration is to demonstrate administrative functions that will provide therapeutic and satisfying situations for patients and personnel. Administration is the management or guidance of an organization for the most effective accomplishment of its stated goal.

The goal of a nursing service organization is more specifically to give continuous care to the patients; to recognize the physical, emotional and social needs of the patients; to meet these needs insofar as possible; to assist in restoring the patients to their optimum health status. In working toward this goal, nursing must maintain itself internally by recognizing the needs of the individuals who make up a nursing service; it must adapt itself to its environment, and working harmoniously with other services of the parent organization (9).

Only through democratic administration can therapeutic and satisfying situations be created for both patients and personnel. Such administration recognizes the worth of each individual. When employees have a part in planning and when they feel respected and accepted, they derive more satisfaction from their work and are better able to respect and accept their patients and co-workers.

Skillful delegation of administrative duties at all levels in nursing service is important if the professional nurse is to be utilized effectively in improving the quality of nursing care in our psychiatric hospital.

This paper has attempted to emphasize the concept of good management principles, in administering nursing services. If we are to accomplish our patient-centered goals, our administration must be people-centered.

BIBLIOGRAPHY

1. Finer, Herman D.: *Administration and Nursing Services*. New York: The MacMillan Company, 1955.
2. Greenblatt, Milton, M.D., Levinson, Daniel J., Ph.D., and Williams, Richard H., Ph.D.: *The Patient and the Mental Hospital*. Glencoe, Ill.: The Free Press, 1957. p. 425.
3. Overholser, et al.: *Current Practices in Mental Hospital Administration*. American Psychiatric Association Mental Hospital Service, Washington, D. C., 1957.
4. *University Education for Administration in Hospitals*. American Council on Education, Washington, D. C., 1954.
5. Wilhelm, Norbert: *Progress in Nursing Service*, *Nursing Outlook*, 2: 184, Apr. 1954.
6. Doane, Edith H.: *Nursing, Making Communications Effective*, *Progress in Nursing Service*, *Nursing Outlook*, 2: 420, Aug. 1954.
7. Arnstien, Margaret G.: *Unity of Nursing Service*, *Progress in Nursing Service*, *Nursing Outlook*, 2: 201, Apr. 1954.
8. Goodwon, Max R., and Jensen, Gale E.: *Organizing Nursing Services in the Hospital*, *Advances in Nursing Services*, *Nursing Outlook*, 4: 212, Apr. 1960.
9. Bixler, Elizabeth S.: *Administrative Processes*, *The League Exchange*, Sec. C. Administration, N.L.N., 1957.
10. Gorman, Mike: *Executive Director, National Committee Against Mental Illness, 1959—What are the Facts About Mental Illness in the U. S.*
11. *Veterans Administration, G-5, M-2, Part V. Section II—Improved Patient Care through Staff Development—The Goal of Supervision*.
12. *Some Tangible Evidences of Sound Organizational Planning for Hospital Nursing Service*. Department of Hospital Nursing, National League for Nursing, 1957.
13. *Hospitals, Part 2*, American Hospital Association, August 1958.

DISCUSSION

WILLIAM S. HALL, M.D. (Columbia, S. C.).—Until recent years, relatively little study and research have been devoted to the science of organizations and administration. It is gratifying to observe that this picture is rapidly changing. The School of Business Administration at Harvard University, The School of Public Health and Administrative Medicine at Columbia University and The Center for Programs in Government Administration at The University of Chicago are only a few of the

fountainheads that are now busily engaged in exploring this new science.

I would like to comment on the following quotation from the paper under discussion :

Leadership need not be authoritarian. A leader can assist in defining goals without categorically imposing them ; he can discuss alternative methods of proceedings without ordering them ; he can encourage spontaneity and individual difference without fostering anarchy ; he can give support and approval without creating dependency. It is a role requiring a delicacy and an awareness of the social consequences of action but it is not an impossible role to play.

The speaker is in agreement that this is the ideal to strive toward ; however, in most large mental hospitals of long standing, it is very difficult, if not almost impossible, to convert such institutions from custodial to active treatment centers unless authoritarian methods are utilized when necessary. This is so because, inasmuch as these institutions are staffed with what might be termed a hard corps of faithful employees who rendered diligent and faithful service during the custodial era, they frequently resist changes and innovations that are conducive toward the "treatment team" approach. In such cases, after the more genteel and democratic methods have failed it is necessary that *staff* administrative officials command and enforce obedience and, even then, several years are usually required to accomplish the desired objective.

It should be remembered that there is a strong tendency for so-called *Line Personnel* to become "non-therapeutically oriented." These people become so involved in the sub-goals of the organization, such as, ward census figures, laundry count, supply requisitions, and housekeeping, that primary treatment goals are often relegated to "some other time" and, of course, in the usual busy ward this deferred period seldom, if ever, transpires.

As you know, the *Line Personnel* actually operate the ward and it is very important that the so-called administrative or *Staff Personnel* recognize the aforementioned tendency because, as the authors of the paper under discussion state :

It is the professional nurse, the leader of the nurse team, who, more than any other person, creates the atmosphere of patient care.

Of interest in this connection are the research findings of Malcolm G. Gynther and Boris Gertz of the South Carolina State Hospital. Edwards Personal Preference Schedule scores were obtained by these researchers from 220 student nurses who were representative of South Carolina's student nurses. Raters independently selected the best and worst nurses in terms of technical competence, dependability, initiative, attitude toward patients and colleagues as well as related factors. The authors of this research work state :

Our results which suggest that student nurses are more concerned with orderliness and sticking to a job until it is finished and less interested in leadership and autonomy than their peers neither confirm nor disconfirm earlier work, as these variables have not been previously investigated. However, these results, in conjunction with the nursing students' tendency to feel more timid and inferior than other women their age, indicate that at least one motive for these girls entering the nursing profession is an attempt to find a stable, well-structured situation in which they will be told what to do and in which they will not be expected to show initiative or extroversive qualities.

The special concern with orderliness, neatness, and careful planning of the "poor" nurses suggests that such nurses would feel particularly comfortable in custodially-oriented hospitals in which security and neatness of wards are considered more important than socialization with patients.

This research work, if confirmed by other investigations, would suggest that nursing administration will have to devote more attention toward overcoming these natural tendencies and personality characteristics of nursing personnel. This is especially true if leadership capabilities on the ward level are to be enhanced.

It is also well that the nursing administrator keep in mind that the patient often views *Line Personnel* as "adversaries" because nursing employees on the ward level are recognized as the prime movers in

bringing about restrictions of patient privileges. The nursing administrator should promulgate measures to lessen these interpersonal feelings in every possible way.

Administration officials would do well to take cognizance of the fact that the professional nurse, as well as the non-professional nursing employees, are frequently guided by and utilize to the fullest, an ambiguous form of cerebration known as "common-sense thinking." Although this nomen is anything but scientific, this form of rationalization is so universal that we need to know more about it. Much research is necessary here, as well as in the whole realm of administration and management of people.

"Administration" has been described as a

continual cycle of planning, organizing, marshalling of resources and controllership, with emphasis on the word "continual." The nurse administrator should be judged in terms of the distance she progresses from "status quo" forward and up the rungs of the ladder to higher accomplishment.

Slightly paraphrasing a statement made by the authors of this excellent paper, from personal experience your discussant would say that, to properly and effectively restructure the administrative organization of a mental hospital from the traditional to the creative and permissive type requires a very long time, confirmed and unshaken confidence, together with ultra and extreme tolerance.

COMMUNITY PRESSURES AND A STATE HOSPITAL PROGRAM FOR CHILDREN¹

JOSEPH J. REIDY, M.D.²

Public mental hospital care for children has been inadequate. All of the reasons which account for poor quality of care of adults in some state hospitals apply as well to the care of children. In addition, it appears that the citizens, the public officials and even many professionals in the fields of psychiatry and of child welfare are less aware of the treatment needs of children than they are of adults. Because of this twofold lack of facilities and of knowledge, the state hospital system is likely to encounter many obstacles when it attempts to provide inpatient psychiatric services for children. This paper draws upon the experience of a recently opened facility in Maryland, the Esther Loring Richards Children's Center, in providing short-term, intensive treatment for seriously disturbed pre-adolescents. It is an account of our experiences and success in providing care of a high quality, and of some of our difficulties.

Institutional psychiatric treatment for children as distinguished from institutional care of children in orphanages, training schools and similar places is relatively new, and almost all the institutions which do give effective treatment have been administered by private agencies. Institutions like The Bradley Hospital in Providence and the Southard School in Topeka, which opened in the 1930's, have had small populations of 20 to 60 patients, and large staffs with a ratio of one or two adults to each child, and have been very expensive. The cost today of treating a child at one of these centers ranges from \$20.00 to \$30.00 a day.

A child who is not admitted to a private institution cannot receive adequate treatment in most states. In 1956 the Department of Public Welfare of Illinois, through the efforts of Dr. Raymond Robertson, pub-

lished the "Report of Survey of State and Territorial Facilities and Programs for Mentally Ill and Emotionally Disturbed Children"(5). This report stated that almost three-fourths of the states were housing and treating children with the adult population of their state mental hospitals. Only 4 states had psychiatric wards for children. Although the Illinois survey stated that children constituted approximately 1% of the resident hospital population, it added that "the information at hand does not clearly indicate the number of children under care." Although 10 states had made or were making surveys to estimate the total number of children needing public institutional care, the Illinois survey commented that "apparently little attention had been given to estimating the over-all need." The conference in 1956 of the American Psychiatric Association and the American Academy of Child Psychiatry on inpatient psychiatric treatment for children also reported that there were few public programs and there were no accurate and reliable studies of the needs for inpatient care for children(6). The publications of the 1960 White House Conference on Children and Youth point out the same needs(8).

PLANNING THE CENTER

In 1956 Maryland also had no separate facilities for children in its public hospital system, although it had experimented briefly with a ward for 9 children in one of the state hospitals. In 1952 a study was published by the Baltimore Council of Social Agencies identifying 131 children in Maryland who needed "closed" institutional care(1). This survey provided a basis for community and legislative action which resulted in the opening of the Esther Loring Richards Children's Center in September 1958.

A few months before the opening of this Center, I came to Maryland as Director of Child Psychiatry of the Department of Mental Hygiene and as director of the new

¹ Read at the 116th annual meeting of The American Psychiatric Association, Atlantic City, N. J., May 9-13, 1960.

² Esther Loring Richards Children's Center, Owning Mills, Md.

center. It turned out that there were advantages in one person having this double responsibility. The problems of beginning a particular treatment program and of formulating a state-wide policy were closely related. The success in treating children admitted to the Center was to depend in part upon what was done regarding the children who were not admitted. Almost every individual problem relating to location, construction, budget, staffing, relationship with the community, treatment of the family, the "open" hospital setting has this double aspect.

I will mention here briefly a few problems which are extensively discussed elsewhere(6). There were, in my opinion, serious faults in the physical plant of the Ester Loring Richards Children's Center. The planning for the physical aspects of such institutions is not a simple matter and must include careful consideration of size, functional design, construction materials, relationship to population centers, to transportation, to other hospitals, universities and medical schools. The director should be selected early enough to allow him to participate in the planning and he should have the right to choose his staff.

In choosing staff as well as in submitting the operating budget there should be no compromise on quality of treatment. This applies, of course, to treatment for persons of any age, but it is often difficult to show departmental officials why so many people and so much money is needed to take care of *children*. My search for qualified persons at times involved refusal to accept job specifications and insistence that positions be given higher classifications. It appeared that classification officers were accustomed to consider the worth of an individual in terms of the number of persons for whom he has nominal responsibility, rather than in terms of the quality of treatment he gives to those in his care. It appeared that some officials felt that a public program could be less expensive than a private program. These persons had to understand that because trained professionals are few it is necessary to pay adequate salaries to keep them in state programs, and because these children need individual care large staffs are necessary.

ADMISSION POLICY

A decisive factor in any program is the admission policy. Some children can be helped in a few months, others will require years of care. There are children who are best treated in an open setting where they can have a relative freedom to move in and out of the community, a setting in which they can test their impulses against authority of adults, their relations to peers and the many other factors which comprise "reality." Other children, fewer in number, need the protection and restraint of a closed setting. Age is a factor, and so there must be separate programs for the pre-school, pre-adolescent, and adolescent. Some children will need emergency care, or observation for the purpose of diagnosis. Children who have severe physical illnesses or handicaps will need the services of a general hospital. How can all of these children be cared for?

One approach is to admit to one program all children who cannot be cared for in the community. This serves only to remove temporarily some burdens from the community. Depending on the design of a given facility, treatment programs may be instituted for two or three types of children, but not for all of them. Another approach is to build all the units simultaneously, so that each unit may receive only those patients it is equipped to treat. This would provide good treatment but it might be difficult to persuade taxpayers and legislators to build simultaneously all the units needed in a comprehensive program. Another solution is to provide for all of these units in one large children's hospital, and a few states are now planning such programs. Perhaps because of my experience in small treatment institutions I view with alarm the construction of children's hospitals of two, three or four hundred beds. If treatment of these children is a team approach, depending heavily on milieu therapy and psychotherapy and very sparing in the use of physical methods of treatment, then there is only a limited number of children that each team can handle. I have often been asked what is the optimum number of children in any active treatment program. I can only answer that the director and each member of his treatment staff should know

intimately each child. If an institution is quite large, say 200 children, it must be divided into a number of smaller, distinct treatment units. I feel large hospitals for children will not be adequately staffed, that the children will not receive the close personal care they require.

If a state begins with one program, the community must know that this program cannot treat all children. Some states have called their first treatment units "pilot programs." Some states anticipated the pressures to admit children and have provided in their laws that the control of admissions rests with the superintendent. In Maryland the commitment laws were not changed; children can be sent to the institution by court order or by the certificates of two physicians. Except for age limit no criteria for admission were formulated when the community was asked to give its support to obtaining this facility. Before the institution opened the persons in the state hospitals were not clear about what type of program was being provided and each person in the community saw the center as able to care for any child who could not remain in the community. A large number of children had been referred to the center. Some were in the adult mental hospitals, some in correctional institutions, others in their own homes or foster homes. They ranged from relatively mildly disturbed children to those with chronic, severe personality disorders. It was clear from inspection of the referral material that these children could not be treated in one program and it was also clear that several programs could not be carried on in the single building which would constitute the entire physical plant of the Center.

With the help of professionals in the state hospital system and in the community, an admission policy was prepared and approved by the Commissioner of Mental Hygiene. This policy defined the program as serving children under 14 who could be treated in a relatively short period of time in an open setting. It required an examination of the child and interviews of his parents before admission and that the community agency remain active throughout the child's stay in the Center.

The staff has little legal authority to con-

trol admissions and there was opposition regarding the examination and evaluation of referred children. Some courts, physicians, and community agencies were accustomed to send patients to the state hospitals without prior consultation with the hospitals, even though all of these hospitals had "pre-admission" clinics. In these circumstances the new Center would have quickly become a custodial institution.

To this date the staff at the Center has not been forced to admit any child whom, in its judgment, it could not help. This success required considerable effort. The staff visited many clinics, courts and community agencies. We explained the program to those persons dealing with mentally ill children, and attempted to convince them that in the long run no one would be helped if all problem children were admitted to the Center. When an emergency arose, usually because a judge was insistent that a child be sent to the Center, I went immediately to the judge to discuss the problem. When we could not admit the child, and it appeared that he should be removed from the community, as Director of Child Psychiatry for the Department, I directed that the child be sent to one of the adult hospitals. I visit those hospitals regularly, examine every child admitted and help the staffs to plan for them. Some of the children should not be on wards with the adult patients and while such a resolution of the crises has safeguarded the work of the Center it is neither good for the particular child nor popular with the community agencies or the state hospital staffs. But again the role of Director of Child Psychiatry is an asset, because I represent the Department on all the state-wide committees dealing with disturbed children. I have been able to tell these committees of the limitations of the programs at the Center and at the state hospitals, and indicate the need for other programs. One result was that the Council of Social Agencies began a re-study of the needs of disturbed children. Recently the staffs of the training schools for delinquents have met with representatives of the mental hospitals to plan for the treatment needs of adolescents.

Many persons who initially criticized the Center for its "rigidity" now understand the

necessity for the staff to adhere to its admission policies. If this was to be a short-term, open type of treatment Center it was necessary that it admit only the children who would benefit from this treatment, and the staff could decide only by examining those referred. When the judges and professionals became aware that the Director of the Center had responsibilities for planning for all children who needed hospital care, and that the Department of Mental Hygiene was also trying to help those who could not be admitted to the Center, they were more cooperative.

The question is often asked: "Why did you start with a short term, open program for pre-adolescents?" Our answer has been that the turn-over of patients would be greater if we concentrated on those needing short term care (less than a year). In the pre-adolescent group there were few children who needed "closed" care. Parenthetically, it appears that it is seldom necessary to hospitalize a child for observation and diagnosis if the outpatient evaluation is thorough. We require accurate and complete referral reports and our examination includes psychiatric and psychological examination of the child, one or more social service interviews with the parents, conferences with the referring agency, and often psychiatric and psychological examination of the parents. In only one instance did the staff feel that it was necessary to admit a child for observation, and two days of observation were sufficient. It is difficult to treat children in a relatively small program if there are in the hospital children who have not been diagnosed and whose treatment needs are not known.

The majority of cases are presented as emergencies, and in the beginning "emergencies" had to wait as long as 8 or 9 months to be examined. The staff advised agencies that if a child could not remain in the community until our evaluation, he could be sent to the adult hospital. If we subtract the children who were transferred to the hospitals from the correctional schools, surprisingly few pre-adolescents were sent to the adult hospitals. The staffs of these hospitals felt that few of the children committed to them were indeed emergencies. To my knowledge there has been

little written on what constitutes a psychiatric emergency in pre-adolescent children. The dangers of suicide and homicide, the main reason for emergency hospitalization of adults, are, according to the literature, rarely present in pre-adolescents. For many of these children the community had exhausted all its resources and the emergency was a placement problem rather than a safety measure. Some children with severe personality disorders make suicidal threats or gestures in order to control adults. Perhaps the findings of Goldberg and Robinson regarding the handling of psychiatric emergencies in a psychiatric clinic are applicable here(3). These authors studied 82 cases that were given immediate service because they were judged emergencies. They found that "all but 2 were not psychiatric emergencies and could have been handled in a routine fashion had clinic personnel adequately assessed family history and more fully explored the symptomatic picture."

FAMILY-ORIENTED TREATMENT

A basic part of the treatment at the Center is treatment of the family as well as the child. Persons in child guidance practice as well as in inpatient work affirm that the illness in the child bears some relationship to the illness or maladjustment in other members of the family. If a child is to become well and remain well, his parents must receive help either in changing certain of their own patterns of living or in dealing with the child. Our family-oriented program is described in detail in another paper (4), but I wish to stress certain aspects of this program. If the child is to return to his family he should not be entirely separated from it while at the Center. The parents care for the child at home on weekends, and this provides them and their child with opportunities to build better family relationships with the help of the Center and the community agency. The child does not feel totally rejected and abandoned by his parents, the parents do not forget about the child or his problems. They do not feel totally guilty about their failure or completely inadequate as parents because they are thus given an opportunity to act as parents and to take responsibility for the im-

provement in their child. Some persons considered this procedure an unjustified departure from state hospital practice, and that it was adopted because of weekend staff shortage. These children were thought to be "too dangerous" to be allowed so much freedom. Such objections do not apply to a group of children selected because they can be treated in an open hospital setting.

Parents have been enthusiastic about this program even though they often have to travel long distances each weekend. They accept responsibility and have been eager to make the child's weekends pleasant. The child is not required to make a total adjustment to an institutional way of life and when he is discharged he does not have to make a completely new adjustment to life outside of the institution. The weekends provide material for the Center's staff to use in treatment of the child and material for the community agency to use in treatment of the parents.

THE CENTER AND THE COMMUNITY

Because the state hospitals have been isolated from the community, the agencies referring patients to these hospitals have lost contact with their patients and have had to leave the total responsibility for treatment to the hospital. The hospital staff labors under great handicaps in providing a comprehensive treatment program which goes beyond the individual patient and reaches into the family and community. The Esther Loring Richards Children's Center works in partnership with the community in the treatment of the child and his family, and discourages agencies from terminating their services when a child is admitted. The Center exists to provide necessary hospital care, and to effect enough improvement to enable the child to return to the community. He and his family may still need help and it is not practicable for the Center to attempt to provide services which should be available in the community. Bloch and Behrens, in their study of referrals for residential treatment in New York State, highlighted the absence of continuing responsibility for the care of these mentally ill children (2). It is the community, through its agencies and clinics, which should provide this continuity of care and responsi-

bility, using the inpatient treatment center as a specialized resource in their total plan.

Because of the inadequacy of treatment facilities in many communities, there are pressures on the Center to accept children who could be helped in the community by psychiatric clinics, family agencies, specialized school programs, foster care plans. When the staff of the Center, as a result of its examination has seen the need for treatment of the child in the community rather than removal of the child from the community, it has so recommended and declined to accept the child. In these same communities the Center has difficulty in finding agencies willing to assume the responsibility for working out a treatment plan for the admitted child, for offering casework services to parents, for help in discharge planning and for followup after discharge. It would appear that the community which has the most highly developed facilities for non-institutional treatment of children will refer to the inpatient center only those children for whom inpatient care is the treatment of choice, and will, by their skillful cooperation with the center, render the treatment more effective. This was stated a good many years ago by Carl Rogers (7), and has held true in our experience. It is from those communities which lack adequate local services that we have received the greatest pressure to accept children who were not in need of institutional care. If all communities had reasonably adequate local services for neglected, dependent, delinquent and mentally ill children, we might be able more easily to arrive at a valid estimate of the need for inpatient services. The danger, I believe, in estimating bed needs without taking into account the need for community services, is that we may provide too many beds and facilitate the community unloading its due share of responsibility on the state hospital system. Since we have not at this date an over supply of beds perhaps we can build wisely.

CONCLUSION

I have tried to show how a public hospital can give the high quality of care given by private residential centers. Except for our plan of having the child live with

his family each weekend, there are no new concepts of care but rather an application of those principles of modern psychiatric care which are well known and which have been practiced for years by well known hospitals and social agencies. There must be a determination to resist pressure from many sources and a willingness to work with community agencies. If such a program can surmount the initial difficulties it can demonstrate by its treatment results the effectiveness of its work.

BIBLIOGRAPHY

1. Baltimore Council of Social Agencies—131 Emotionally Disturbed Children and Resources for Their Care, December 1952.
2. Bloch, D. A., and Behrens, M. L.: A Study of Children Referred for Residential Treatment in New York State. New York State Interdepartmental Health Resources Board, Albany, N. Y., 1958.
3. Goldberg, S. and Robinson, J. A.: Anxiety Laden Situation Suggestive of Emergency Action. Reported in *Research Relating to Children*, Bull. #9, Aug. 1958, Feb. 1959. U. S. Govt. Printing Office, Washington 25, D. C., p. 98.
4. Reidy, J. J.: An Approach to Family-Centered Treatment in a State Hospital. Paper presented at meeting of American Orthopsychiatric Association, Chicago, Ill., Feb. 28, 1960.
5. Report of Survey of State and Territorial Facilities and Programs for Mentally Ill and Emotionally Disturbed Children. Department of Public Welfare, Springfield, Ill., 1956.
6. Robinson, J. F. (ed.): Inpatient Psychiatric Treatment for Children. Am. Psychiatric Assn., 1958.
7. Rogers, C. R.: The Clinical Treatment of the Problem Child. N. Y.: Houghton-Mifflin Co., 1959.
8. The States Report on Children and Youth. Golden Anniversary White House Conference on Children and Youth, Inc., Washington, D. C., 1960.

THE "ADEQUATE RELAXATION INTERIM" FOLLOWING SUCCINYLCHOLINE ADMINISTRATION IN ELECTROSHOCKTHERAPY

CHARLES BUCKMAN, M.D., ARTHUR KRELL, M.D., IRVING PINSLEY, M.D.,
ARTHUR S. IMPASTATO, M.D., AND DAVID J. IMPASTATO, M.D.¹

Succinylcholine chloride (SCC) is used in the convulsive therapies for the purpose of eliminating bone and muscle injuries. However, the optimal time for the administration of electric current following the intravenous injection of SCC is still controversial. EST has been administered from 10 to 65 plus seconds following the injection of SCC. As each worker attempts to give the grand mal at the time of maximal muscle relaxation, the marked variation in the time of giving such stimulation is due to a difference of opinion as to when this occurs. Murray(1), Holmberg and Thesleff(2), Impastato and Berg(3), Glover and Rosium(4) apply the GM stimulus from 10-20 seconds after the SCC injection, while Moss, *et al*(5), McDowell, *et al*(6), Price and Rogers(7), Richards and Youngman(8) and Alexander, *et al*(9), stimulate from 45 to 65 plus seconds after the SCC injection.

The purpose of this study is to determine the optimal time or interim following the injection of SCC when the grand mal may be given.

MATERIAL

Twenty patients for whom EST was prescribed were selected at random: 11 females, age range 19 to 60 and 9 males, age range 23 to 61. Among these were 16 schizophrenics: 8 catatonic, 4 paranoid, 2 hebephrenic and 2 mixed types. Of the rest, 2 were involuntal; 1 paranoid and 1 melancholic; 1 manic-depressive depressed and 1 psychotic due to alcohol. Physical conditions of all patients were grossly normal and none was a poor risk.

EST was administered 3 times weekly and at each treatment recordings were made of: 1. The interim of time between the injection of SCC and the appearance of the circumoral fasciculation caused by

the SCC; 2. The interim between the appearance of the circumoral fasciculation and the administration of the grand mal stimulation; 3. The degree of muscle relaxation. The grand mal was given at various interims, each observation being recorded on consecutive treatment days. At the first treatment the grand mal was applied 5 seconds after the circumoral fasciculations were first seen and on subsequent treatments the interim was lengthened (see Fig. 1). In all patients atropine 1/75 gr. was administered I.M. ½ hour before each treatment. A standard dose of 15 mg. of SCC was used in all patients. No oxygen was used either before or after each treatment. No barbiturates were used.

SCC CIRCULATION TIME

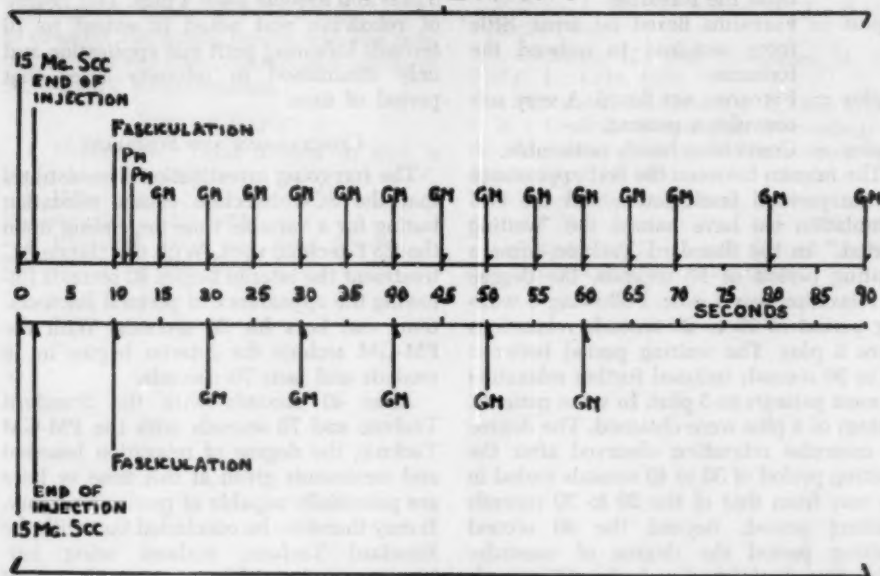
After one works with SCC, even for a short time, it becomes obvious that the interim between the injection of SCC and the appearance of perioral fasciculations depends upon the circulation time. We recorded the circulation time of the SCC in all patients and found it constant for each of them. It varied from one patient to another, the average being 13 ± 5 seconds.

In all of these patients we also measured the arm to tongue circulation time with calcium gluconate and found it to be 1 to 2 seconds less than the SCC circulation time. We mention this to point out the variability of the interim between the injection of the SCC and the appearance of perioral fasciculations and to urge that time measurements of the effect of SCC be made not from the beginning of the SCC injection but rather from the appearance of the perioral tremors. This, we believe, is a fixed invariable point and determinations of interim periods starting from this point will yield more accurate results. We have done this in our work.

¹ From Kings Park State Hospital, N. Y.

GRAND MAL STIMULATION AT VARYING INTERIMS FOLLOWING SCC PERIORAL FASCICULATIONS IN STANDARD AND PM-GM EST TECHNICS

PM-GM TECHNIC



STANDARD TECHNIC

FIGURE 1

METHODS OF EST APPLICATION

Standard Technic: SCC was injected within 2-3 seconds and at 10-20-30-40 and 50 seconds following the appearance of the perioral fasciculations the grand mal was given with the Molac II Alternating Current Machine in the "High" position (10). (For the purpose of our study the Molac II can be equated to any ordinary AC machine.)

PM-GM Technic: SCC in many patients causes unpleasant feelings of suffocation if the grand mal is not given soon enough. This undesirable effect occurs within a few seconds after the appearance of perioral tremors. To circumvent this the patient is either anesthetized with a barbiturate prior to the injection of the SCC or rendered unconscious with a petit mal stimulation at

the first sign of perioral fasciculations. This latter method is known as the PM-GM Technic(11), described as follows: a small dose of SCC is quickly injected intravenously. As soon as the perioral tremors are seen two petit mal stimuli are given in quick succession and followed 5 to 10 seconds later by the grand mal.

For our experiment we modified this technic as follows: SCC was injected within 2 to 3 seconds and as soon as perioral twitchings were seen 2 petit mals in quick succession were given with the Molac II machine in "Low" position (with the classic AC machines the petit mals may be given by setting the machine at 110 volts at 0.1 seconds). Then, on successive treatments the grand mal was given with the Molac set in the "High" position after 5-10-15-20-25-30-35-40-45-50-55-60-65-70-80-

90 seconds. The degree of muscle relaxation in both methods was rated as follows:

- 0 = No relaxation
- 1 plus = Forearms flexed on arms, considerable force required to unbend the forearms.
- 2 plus = Forearms flexed on arms, little force required to unbend the forearms.
- 3 plus = Forearms not flexed. A very soft convulsion present.
- 4 plus = Convulsion barely noticeable.

The interim between the first appearance of the perioral fasciculation and the GM stimulation we have named the "waiting period." In the Standard Technic, after a waiting period of 10 seconds, the degree of relaxation was 1 plus. Following a waiting period of 10 to 20 seconds relaxations were 2 plus. The waiting period between 20 to 30 seconds induced further relaxation in most patients to 3 plus. In some patients, ratings of 4 plus were obtained. The degree of muscular relaxation observed after the waiting period of 30 to 40 seconds varied in no way from that of the 20 to 30 seconds waiting period. Beyond the 40 second waiting period the degree of muscular relaxation diminished and after 50 seconds ratings were reduced to 1 plus.

With the PM-GM Technic, after a waiting period of 5 seconds (since the PM are given as soon as the perioral fasciculations

are seen, for practical purposes the two may be said to take place at the same time) the degree of relaxation was already sufficient to be rated as 1 to 2 plus. In most cases, after 10 seconds the muscle relaxation was 3 plus and in some cases 4 plus. This degree of relaxation was noted to extent to 70 seconds following petit mal application and only diminished in intensity after that period of time.

CONCLUSIONS AND SUMMARY

The foregoing investigation demonstrates that the SCC injection causes relaxation lasting for a variable time depending upon the EST technic used. With the classic AC treatment the interim begins 20 seconds following the appearance of perioral fasciculations and lasts for 20 seconds. With the PM-GM technic the interim begins in 10 seconds and lasts 70 seconds.

After 40 seconds with the Standard Technic and 70 seconds with the PM-GM Technic, the degree of relaxation lessened and treatments given at this time or later are potentially capable of producing injury. It may therefore be concluded that with the Standard Technic, without using barbiturates and quickly injecting 15 mg. of SCC, one should not wait longer than 40 seconds after the onset of perioral fasciculations. To administer the grand mal with the PM-GM Technic it is apparently

RELAXATION RESPONSES WITH GM APPLIED AT VARIOUS INTERVALS FOLLOWING SCC PERIORAL FASCICULATION IN STANDARD AND PM-GM TECHNIQUES

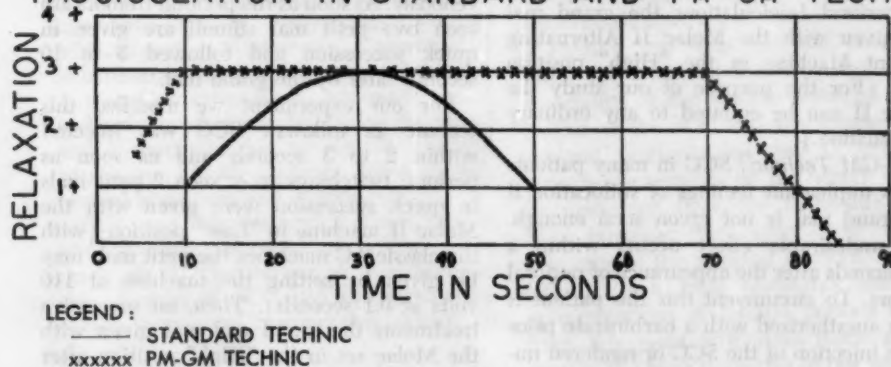


FIGURE 2

safe to wait up to 70 seconds. We were surprised to discover that the double petit mal greatly prolonged the "adequate relaxation interim." A possible explanation for this might be that the petit mal application releases acetylcholine which re-enforces and prolongs the action of SCC. Further study to discover the actual reason why the petit mal re-enforces and prolongs the action of SCC, should be undertaken.

BIBLIOGRAPHY

1. Murray, N. : Texas Reports on Biol. & Med., 11 : 593, 1953.
2. Holmberg, C., and Thesleff, S. : Am. J. Psychiat., 108 : 842, 1952.
3. Impastato, D. J., and Berg, S. : Am. J. Psychiat., 112 : 893, 1956.
4. Glover, B. H., and Rosium, B. H. : J. Nerv. & Ment. Dis., 120 : 358, 1954.
5. Moss, B. F., Thigpen, C. H., and Robinson, W. P. : Am. J. Psychiat., 109 : 895, 1953.
6. McDowell, D. M., Rehill, A., and Tyn-dall, J. A. : J. Irish Med. A., 31 : 240, 1952.
7. Price, J. M., and Rogers, W. J. : B.M.J., 1 : 1027, 1952.
8. Richards, H., and Youngman, H. R. : B.M.J., 1 : 1334, 1952.
9. Alexander, L., Gilbert, I. E., and White, S. E. : Confinia Neurologica, Proceedings of the 9th Annual Meeting of Electroshock Res. Assoc., 13 : 324, 1953.
10. Impastato, D. J., Berg, S., and Gabriel, A. R. : J. Nerv. & Ment. Dis., 125 : 380, 1957.
11. Impastato, D. J., and Gabriel, A. R. : Am. J. Psychiat., 114 : 698, 1958.

THE CULTIVATION OF COMMUNITY MENTAL HYGIENE LEADERSHIP ABILITY AS A PART OF A PSYCHIATRIC RESIDENT'S TRAINING¹

HOWARD M. KERN, JR., M.D.,² AND CAROLINE A. CHANDLER, M.D.³

Changing attitudes towards mental health and patterns of care for the psychiatrically ill have greatly increased demands for psychiatrists experienced in community mental health and motivated to work in this psychiatric specialty. In the State of Maryland we are developing a program of training in public health psychiatry for psychiatric residents which we believe is unique in the United States. The purposes are: first, to incorporate the practical and theoretical aspects of public health psychiatry into the psychiatric residency programs in the State of Maryland; and secondly, to provide psychiatric service of a high quality on a consistent basis to understaffed areas. The program is a cooperative venture of the State Health Department and the various university, private, and state psychiatric training centers in Maryland. We believe that it is a pattern that can be readily adapted to other areas, using existing personnel and adding little to the cost of present mental hygiene programs.

The training is based upon the point of view that leadership, inventiveness and industriousness are best furthered in the maturing physician by placing him in a position of responsibility and providing him with a source of senior advice without continual, on-the-spot supervision.

Practical experience in community mental health has not been included heretofore in the usual resident's training, even though he may have considerable experience in a large university or community clinic. These firmly established and well operated departments insulate the resident from the community by their size, and by the division of responsibility.

In our present enterprise, designed to improve the residents' understanding of community psychiatry, senior psychiatric residents serve as consultants in mental health to the county health departments within commuting distance of the training center. Each resident has the following responsibilities:

1. Serving as psychiatric consultant to the local health department and staff, to private physicians and to other community agency workers.

2. Assisting the county officer in planning a mental health program.

3. Acting as director of a part-time mental health clinic in the county department and assuming the medical responsibility for providing psychiatric diagnosis and treatment for adults and children.

4. Supervising the work of non-medical clinic staff and handling correspondence and reports in connection with the program as required.

5. Participating in the in-service education of health department staff and other professional and public mental health educational programs upon request of the local health officer.

The counties selected for this educational enterprise have been small enough and distant enough from the metropolitan area, that each is a fairly self-reliant community, with a structure and leadership pattern which can become familiar and understandable within a moderately brief period. The compactness of the counties permits the resident to get an overall view of the interaction of various agencies. In many instances, there are certain key individuals in the community agencies who can be dealt with informally and by personal contact. In addition, there are fewer buffers between the psychiatric consultant and the community agencies and leaders than exist in the large metropolitan clinics. The psychiatric resident is very much on his own in a situation demanding forbearance, tact,

¹ Presented at the Pan-American Medical Association meeting in Mexico City, May 5, 1960.

² Resident in Psychiatry, Henry Phipps Psychiatric Clinic, The Johns Hopkins Hospital Consultant and Supervisor, Psychiatric Residency Training Program, Maryland State Department of Health.

³ Chief, Office of Mental Health and Child Health, Maryland State Department of Health.

flexibility and the willingness to learn. He is challenged by a job requiring ingenious solutions to immediate problems and by stimuli arising from the opportunity for leadership.

Participation in the program is based upon the recommendation of the resident's chief of service, and approval of the Chief of the Division of Mental Health for the State Department of Health, and the local health officer. The participants must have had at least two years clinical psychiatric experience and must have indicated by their past performance that they have potential for leadership and a flexible orientation towards the field of psychiatry. Each resident spends one work day per week as consultant to the local health officer of a rural county, and in this position he is psychiatric director of the mental health clinic for that county. While on the job he has no direct senior psychiatric supervision. This is provided in the form of individual conferences with the Supervisor of the Training Program and the Chief of the Division of Mental Health of the State Health Department. Group meetings and discussions are led by consultants to the State Department of Health in the specialties of psychiatry, psychology, psychiatric social work, and psychiatric nursing. Academic experience in problems of public health psychiatry are provided by a seminar in community mental health given in the School of Hygiene and Public Health of the Johns Hopkins University. By periodic presentation of his community experience to the staff of his parent institution, the resident evaluates his experience and receives the support and criticism of fellow professionals not directly concerned with the state program. The

resident compensates his parent institution for the time away by working additional time during evenings and weekends and is, in turn, compensated by the training experience and by a stipend from the health department. In total, they spend 4 work days, plus 11 hours in supervisory and seminar sessions per month.

To illustrate the variety of experience present in the program, the following figures are offered covering the 5-month period of one resident's experience. During that period he saw 30 new patients for evaluation and had a total of 65 followup patient visits. There were also 55 interviews with relatives, referring agencies and local physicians. He attended 5 meetings with the local mental health association representatives, 4 with school authorities, and made one public presentation to the local mental health association. He had direct personal contact with 28 key community personnel including physicians, public health nurses, welfare workers, school superintendents, school principals and counselors, clergymen, and representatives of law enforcement, court and probation services.

In summary, we believe that the Maryland program enriches the resident's training experience, expands psychiatric residency programs, and provides mental health services to areas that have always been difficult to staff. Although this program is in the early stages of development, there is some indication that it will encourage many psychiatrists to view problems of community mental health sympathetically and consider public health psychiatry as a possible area of specialization.

A LONGITUDINAL STUDY OF SCHIZOPHRENIA¹

H. KLONOFF, Ph.D., G. H. HUTTON, M.D., G. H. GUNDRY, M.D.,
AND T. T. COULTER, Ph.D.²

The study was designed to document the long-term clinical course of schizophrenia, as reflected in the present status and past history of a group of World War II veterans diagnosed as schizophrenic, and under surveillance by the Vancouver office of D.V.A., since the end, or shortly after the end of the War. The first objective of the study was to determine the relationship between the present status of the patients, and the onset and course of the disease. The next two objectives were concerned with ascertaining the effects of direct social support, that is, by the patients' families, and indirect social support, provided by D.V.A., including pensioning, on the course and present status of the disease.

A survey of the literature was made with reference to the objectives of the study and the methodology to be employed. Previous studies of this particular kind have been, surprisingly, rather rare (1-5, 7-10, 12, 13).

PROCEDURE

The population used was the total number of World War II veterans, namely 118, in British Columbia, diagnosed as, and pensioned for, schizophrenia. Of these, 64 were ambulatory patients, 55 males and 9 females, and 54 were hospitalized, 51 males and 3 females.

Four lines of investigation were: 1. *Psychiatric Status*: The outpatients were examined by one of the psychiatrists and the hospitalized patients by the other psychiatrist. The clinical findings were then summarized on a revised edition of the Malamud and Sands (10) psychiatric rating scale and on an "insight" scale. Inter-psychiatrist (rater) reliability had previously been established as significant ($r=.84$) on an independent, but similar, sample of 30 patients.

¹ Read at the annual meeting of the Canadian Psychological Association, Edmonton, Alberta, June 1959.

This project was sponsored by grant No. 14-58, of the Department of Veterans Affairs, to whom we wish to express our thanks.

² Department of Psychiatry and Department of Psychology, Shaughnessy Hospital, Vancouver, B. C.

The 7 point scale assessed the following 19 functions: appearance, motor activity, responsiveness, aggressiveness, socialization, communicability, thought processes, attention, awareness, association, content, memory, affective reaction, feeling tone, mood, sleep, nutrition, sexuality, and work. The "insight" questionnaire assessed the extent to which the patient understood the nature of his illness, what types of treatment he had received, the name he gave to his illness, and his reactions to pensioning.

2. *Psychological Status*: The Wechsler Adult Intelligence Scale and the Rorschach, scored according to the technique of Buhler, Buhler and Lefever (6), were administered to each patient. 3. *Personal-Family-Treatment History*: These were obtained from the rather comprehensive District and Hospital files, using military, medical and social work data. 4. *Interview of Relatives*: The relatives who had indicated the most interest in the patient over the years were visited and interviewed by a member of Veterans Welfare Services.

RESULTS AND DISCUSSION

The frame of reference for the analysis of the data that was the distribution of scores on the psychiatric rating scale. Comparisons were made between ambulatory and hospital groups, and then between two ambulatory and three hospital subgroups, using chi square and the t. test for all comparisons—A1 and A2, H1 and H2, H2 and H3, A1 and H1, A2 and H2, A and H.

Our first finding from the psychiatric data indicated that the relationship between mental status and ambulatory or hospital status was not a close one; 29.70% of the ambulatory group revealed as much pathology as, or significantly more than, a sizable portion, 74.08%, of the hospital group. Grossly pathological symptoms, namely, hallucinations and/or delusions, were found in as many as 20.31% of the ambulatory group and in only 37.29% of the hospital group. While some of the ambulatory pa-

tients revealed an ability to exercise the judgments and make the decisions of ordinary life by thinking in concrete terms and using habitual responses, careful scrutiny revealed that they continued to suffer from thought disorder. Others had learned to inhibit the expression of their delusions and inappropriate feelings. Still others revealed gross personality distortion and desocialization. The ambulatory group, but most particularly ambulatory subgroup A1, exhibited the greatest degree of insight into: the nature of their illness, the type of treatment they had received, the contribution of treatment towards their improved state, and that their illness was a mental one. The 7.63% of the population who mentioned psychotherapy, acknowledged it in only rudimentary terms. Even our best adjusted patients appear to have only very superficial insight. But what they do express in action, and in one way or another, in words, is that they have developed various self-protective devices, even to the point of repressing mention of the fact that their illness was emotional or mental. The insight they have found useful is the acknowledgment of their limitations.

With respect to the psychological evaluation, analysis of the Wechsler revealed a significant relationship among current level of intellectual functioning, extent of impairment and psychiatric status. The ambulatory group are brighter and less impaired than the hospital group, while ambulatory subgroup A1 reveal the same trend with respect to ambulatory subgroup A2. Some degree of impairment, as measured by vocabulary scatter, verbal-performance discrepancy, and inter-test variability, was found in all of the patients: 29.57% exhibited minimal impairment, 52.18% moderate impairment, and 18.25% advanced impairment. There is every indication that, while a good intellectual endowment may not preclude affliction by the disease, it does provide greater potential for rehabilitation, even when there is continuing thought disorder. The correlation (r) between the Basic Rorschach Score and the psychiatric rating scale was $-.53$, and significant beyond the .01 level of confidence. When the Basic Rorschach Scores were distributed among Buhler's(6) four levels of integra-

tion—Adequacy, Conflict, Defect, Reality Loss—we found: no entries in the initial or Adequacy category; 14.78% in the Conflict category (with only the ambulatory group contributing to this category); 23.48% in the Defect category (17.39% of these were in the ambulatory group); the remaining 61.74% in the Reality Loss category (20.87% of these were in the ambulatory group). It is significant that more than 70% of the ambulatory group evidence very tenuous reality testing, *i.e.*, register in the Defect and Reality Loss categories. While all of these patients have been through a period of personality disorganization, comparatively few have regained their premorbid intellectual efficiency or personality stability.

In our third line of investigation, by reviewing historical data, we sought to clarify some of the differences in current reaction-patterns among patients, as evidenced in the psychiatric and psychological findings. We accordingly turned to factors that might be of etiological import, together with data that reflected the course of the disease over the years.

With respect to service history, we could detect no significant trends. Age of enlistment (range: 17 to 51 years, mean: 23.22 years), though coinciding with age of maximum susceptibility to schizophrenia, was not significant. Length of service (range: 3 to 123 months, mean: 33.11 months), *i.e.*, prolonged exposure to stress, did not reveal a significant pattern. Area of service (41.52% never left Canada and only 33.90% served in a zone of operations), *i.e.*, intensity of stress, also proved to be non-significant. Nor were we able to detect the existence, in any significant proportion, of specific precipitating factors, apart from military stress. What aspects of Service life can be construed as having been most contributory? Anxiety to an intolerable degree, may have been aroused by separation from familial and environmental supports. Service may also have demanded an ability to form types of relationships beyond these persons' range of adaptability. All we can say is that 77.97% of our group initially broke down during Service, for an overwhelmingly large proportion of these the break was psychotic and quite acute.

Secondly, we reviewed developmental

history. Pathogenic parental attitudes (rejection, extreme discipline, extreme independence, extreme indulgence and extreme overprotection) were found in only 44.07% of our population. Wahl(13) also reports pathogenic parental attitudes in only 50.3% of his group. Relationships with siblings were inappropriate in 31.51% of our group. Caldwell(7), however, reports that 60% did not evidence strong family ties. There is some possibility that relatives who provided the histories in our group have been unduly defensive or not sufficiently critical. Death, divorce or separation of parents before the end of adolescence was found in 31.36% of our group as compared to Wahl's (13) finding of 41%. In any event, we found no significant differences among our subgroups with respect to the above three factors. Like Caldwell(7) and Wahl(13), we could not demonstrate readily discernible conflict in early relationships in every patient under investigation.

Thirdly, we searched for signs of predisposition towards mental illness and premorbid personality patterns. The incidence of psychiatric history in immediate family appears to be much higher in our study than in the population as a whole—30.15% revealed mental illness in the immediate family (parents and siblings). These figures are probably higher than Caldwell's(7) stated 33%, as he included under immediate family, grandparents, uncles and aunts. However, there were no differences among our subgroups with respect to predisposition. Data about premorbid personality were only available for 60.17% of the patients and for somewhat more than two-thirds of these we could not find evidence of schizoid or pronounced introverse trends. Our findings, as well as the research of Bellak and Parcell(2), Caldwell(7), Ripley and Wolf(12), do not reveal a readily recognized, consistent pre-schizophrenic personality.

Fourthly, we reviewed educational and occupational history. The mean educational level was 9.55 grades, and the range from grade 3 to 5th year university. Educational level was significantly higher for the ambulatory compared to the hospital group and for ambulatory subgroup A1 compared to ambulatory subgroup A2. Premorbid oc-

cupational level, but not work stability, was significantly higher for the ambulatory compared to the hospital group. The effect of the illness on the ambulatory group has been downward vocational mobility and decreased work stability.

Fifthly, we reviewed treatment history. All of the veterans in our study have been hospitalized for their mental illness. The last decade and a half, for many, has been a series of exacerbations and remissions; for others, a single episode lasting 16 years without remission. The group has had on the average 3.91 "breakdowns" necessitating hospitalization, and has spent on the average 74.07 months (range was 2 to 192 months) in hospital. Outpatient contact has until recently been restricted to some of the better-integrated patients. With respect to treatment *per se*, the relationship between type and extent of treatment and present status remains unclear. While the group as a whole has been exposed to rather intensive treatment, the hospital group had a greater variety, including psychosurgery, somatotherapy, chemotherapy, and milieu therapy. There is, however, little indication that psychotherapy played a significant role in the treatment of these patients. Though the ataractic drugs have undoubtedly played a significant role in stabilizing many of our patients, and most particularly in facilitating the release of some long-term cases, the overall effect of the drugs, for the group as a whole is unclear as yet. With respect to the type of schizophrenia, 19.49% were classified as simple, 58.48% as paranoid, 13.56% as catatonic, and 8.47% as hebephrenic. But we found no relationship between type of schizophrenia and our subgroupings.

Our fourth line of investigation for clarifying differences in current reaction-patterns of patient focused on the relatives—their attitudes, expectancies, and day to day treatment of the patient. Data, based on interview and observation of the home setting, indicate that the general health, mental stability, competency of, and general standard of living for, an overwhelming proportion of the informants is not out of keeping with the community at large. In contrast to the hospital group, relatives of the ambulatory group, and more particular-

ly ambulatory subgroup A1, are better informed about mental health and mental illness, are more insightful about the patient's condition and limitations, and are more optimistic about the patient's future. At the present time, 78.12% of the ambulatory patients are living with relatives, and receiving day by day support; more than half of the remainder, though living apart from relatives, are still within the orbit of the family influence. While one of the residual effects of this disease is to decrease the range of relationships, even for the better integrated, schizophrenia does not preclude or incapacitate individuals from establishing and maintaining enduring relationships. Granted that the relationship is often with a parent (50% of the ambulatory group live with a parent) and in our groups most often with a mother, where pathological behaviour may be condoned or even reinforced, this has important implications for the treatment of schizophrenia. Furthermore, 21.19% of the group under review are married, and almost all contracted their marriage after their mental illness was manifested. Two-thirds of the married patients are ambulatory, and in fact in ambulatory subgroup A1. Interestingly, the marital adjustment is defined as good in 78% of our cases; 72% have children; and the attitude towards the children is more or less appropriate in 85% of these cases. With respect to those patients residing with a parent, if the parent should become incapacitated, a considerable number of patients would, in all probability, decompensate, or their adjustment would be lowered to the point where they would require some form of custodial care or close support from the community.

Inter-related to the emotional support that has been provided by relatives, is the support made available by D.V.A. pensioning. An analysis of patients' and relatives' attitudes reveals that 84.38% of ambulatory patients, as well as 85.85% of relatives of both ambulatory and hospital patients, expressed appreciation of pension, both with respect to the economic security, the treatment, and the interest that have been provided. Pensioning also permits certain patients to hold down less-challenging jobs, or to remain nearly self-supporting with

part time work, thus protecting them from one source of stress. Pensioning also often qualifies relatives' attitudes towards the patient and his illness in a positive manner, thus enhancing and reinforcing relatives' support of patients. For the group under review, there is every indication that the benefits from pension have more than offset the adverse effects that this might have had on patient's motivation to work. It is also most probable that if D.V.A. did not contribute to the economic and therapeutic support of these patients, the responsibility would have to be assumed by some other agency in the community.

One trend was discernible in our analysis of the data—the trend towards alteration in adjustment potential or residual impairment. In order to document this more explicitly, we focused on only the ambulatory group; and to arrive at an estimate of impairment from the premorbid level for this group, we took into consideration the psychiatric data, the psychological data, employment status and their sphere of relationships. Weights were assigned to the distribution of scores on the psychiatric rating scale, and scale of insight; to the index of inefficiency on the WAIS, and to the levels of integration on the Rorschach; to the extent of vocational mobility and instability; and to the social interaction or sphere of relationships. A composite score was, therefore, available for each patient. The scores were then distributed among categories which we designated minimal, moderate, advanced, and analyzed by means of chi square. Our index of impairment revealed: 1. Half of the ambulatory patients show moderate impairment, with the remainder being almost equally divided among the minimal and advanced categories; 2. Only one-third of the ambulatory subgroup A1 show minimal impairment, the remainder of this subgroup exhibit more severe impairment. None of the ambulatory subgroup A2 were found in the minimal category, and two-thirds were in the advanced impairment category; 3. There is a significant relationship between level of adjustment and type of supporting figure. Patients residing with a spouse tend towards the minimal-moderate end of the impairment range (11 of the 15 in the minimal

category are living with a spouse), whereas those living with a parent, or alone, tend towards the moderate-advanced end of the range.

How might we account for the fact that a sizable portion of the hospital group evidenced considerably less pathology than some of the ambulatory patients and yet remained institutionalized? Few of these patients would be regarded as dangerous to themselves or to the community at large. Our observations of these patients, and the data on hand, suggest that many remain in hospital because of two factors. The first is the absence of an interested family member to either pressure for release or assume responsibility for the patient if this has been suggested. Within the hospital group, 50% either "seldom" or "never" receive a visitor—all but one of the patients who are never visited are in the less-severely disabled hospital subgroups. Dependency appears to be the other main factor that is keeping some of these patients in the hospital. Many patients find that their dependency needs are most adequately satisfied by the current medical-social arrangement of the hospital.

CONCLUSIONS

We were not able to demonstrate significant trends or relationships between the onset and course of the disease on the one hand, and the present status on the other, in a group of schizophrenics, many of whom might be classified as chronics. Age at breakdown, acute onset of symptoms, developmental factors, in themselves or in toto, do not appear to be reliable predictors as to the long-term picture of adjustment for such a group. Intellectual endowment and education, which are themselves highly correlated, were found to be predictive indices as to adjustment potential. The most important factor, however, was that of family support—support that took the form of continued responsible acceptance of the patient. As a matter of fact, whether a patient was hospitalized or remained in the community often depended on the extent of direct social support. We suggest that prognosis in schizophrenia depends as much on the unfaltering support of the relatives as on symptomatology or extent of treatment. If direct social support by the family is the

necessary determinant for a more adequate and stable level of adjustment, and indeed it appears to be, indirect support—economic, treatment, interest—by D.V.A. is a secondary, but important factor for continuing remission. Long-term involvement with D.V.A. also qualifies relatives' attitudes towards the patient and his illness in a positive manner, thus reinforcing relatives' support of patients. At least in the group we are investigating, it is not surprising to find that the disease has been lengthy and self-limiting, and that patients have been left with some degree of residual impairment. We must emphasize, however, that chronicity diminishes, but does not destroy the patient's capacity to enter into meaningful human relationships. We must further emphasize that treatment responsibility should extend beyond the period when the patient is floridly psychotic. Many patients in fact require lifelong "rehabilitation," and if influences from outside of hospital have as much, and at times more, to do with rehabilitation than treatment within the hospital, then family and community should share in this rehabilitation programme from the very onset of the disease. There is also firm reason to indicate that many a chronic schizophrenic patient is able to learn, by progressive maturation, to be self-supporting, at least partially, in the community, when given the opportunity for a continuing rehabilitation programme.

BIBLIOGRAPHY

1. Bellak, L.: *Dementia Praecox*. New York: Grune & Stratton, 1948.
2. Bellak, L., and Parcell, B.: *Psychiat. Quart.*, 30: 627, 1946.
3. Brill, N. Q., and Beebe, G. W.: *Am. J. Psychiat.*, 108: 417, 1951.
4. Brill, N. Q., and Beebe, G. W.: *A Follow-up Study of War Neuroses*. VA Medical Monograph, 1955.
5. Brown, G. W., Carstairs, G. M., and Topping, G.: *Lancet*, 11: 185, 1958.
6. Buhler, Buhler, and Lefever: *Development of the Basic Rorschach Scores*, University of Southern California, Los Angeles, Calif., 1949.
7. Caldwell, J. M.: *Am. J. Psychiat.*, 97: 1061, 1941.
8. Dancey, T. E.: *Treatment Services Bull.*, 5: 25, 1948.

9. Dancey, T. E. : *Am. J. Psychiat.*, **107** : 347, 1950.
10. Malamud, W., and Sands, S. L. : *Am. J. Psychiat.*, **104** : 231, 1947.
11. Rapaport, D. : *Diagnostic Psychological Testing*, Vol. 1. Chicago : The Year Book Publishers, Inc., 1945.
12. Ripley, H. S., and Wolf, S. : *Am. J. Psychiat.*, **108** : 409, 1951.
13. Wahl, C. W. : *Am. J. Psychiat.*, **113** : 201, 1956-7.
14. Wechsler, D. : *The Measurement of Adult Intelligence*. Baltimore, Md. : Waverly Press, 1944.
15. Wechsler, D. : *The Adult Intelligence Scale*. New York : The Psychological Corp., 1955.

CLINICAL NOTES

(The Clinical Notes report the findings of the authors and do not necessarily represent the opinions of the Journal.)

EFFECTS OF A DRUG ON THE BODY ODOR OF THE CHRONICALLY MENTALLY ILL

CARL GOULDMAN, M.D.,¹ AND AVONELL RUTHERFORD, R.N.²

Sch-6673,³ which is similar in chemical structure to Trilafon, was evaluated as a tranquilizer. After the study⁴ was completed, 3 patients were kept on the drug because of its good effects. One of these patients had a marked body odor which disappeared completely while on Sch-6673 and re-appeared when he was placed on a different drug.

Eighteen patients, age 22-55 (6 males, 12 females), were then chosen because of their unpleasant odor and were started on Sch-6673 to determine the drug's deodorizing effect. The intent of the study was to conceal its purpose from the ward employees. Diagnoses: schizophrenia 9, mental defect 2, C.B.S. 5, alcoholics 2.

METHOD

The patients were divided into 2 groups according to sex. The female group remained on drug during the course of the study to determine if the effect was lasting. The male group was placed on the drug until a change in their odor became apparent, then the drug was discontinued until the odor reappeared and were placed on the drug again until deodorized.

No change was made in the patients' diet,

the frequency with which they were bathed or their clothing was changed. They remained on the same wards. Three research personnel made a daily check of the patients' odor by standing close to them during an interview. An additional check of the odor was made while taking the patient's blood pressure and having him raise and lower his arms.

The initial dosage was two 50 mgm. tablets daily by mouth for 15 days, then a 50 mgm. was given every other day for 22 days. The change in odor appeared to be dose-related. As a rule the patient remained deodorized for 3 days after the drug was stopped.

RESULTS

Only one patient, a schizophrenic female who developed epileptiform seizures, was dropped from the study.

By the 12th day the characteristic body odor was no longer apparent in 14 of the 17 patients. This change was noted in 4 patients after 3 days, in 6 more after a week and in 4 others at the end of 12 days. Ten of these 14 patients remained odor free for 16 to 22 days. In the other 4, the change was intermittent, i.e. the odor was evident on some days and absent on others.

The effect did not appear to be sex-related. In those male patients whose body odor disappeared while they were on the drug, the odor re-appeared when the drug was stopped and disappeared when it was re-started.

DISCUSSION

Our impression is that the effect of the drug was more pronounced in schizophrenics than in the other patients. If this is correct, and if the perspiration of certain

¹ Ass't. Supt., Research Director, Hastings State Hospital, Ingleside, Nebraska. (Juul C. Nielsen, M.D., Supt.).

² Research Nurse, Nebraska Psychiatric Institute. (Cecil Wittson, M.D., Director).

³ This study was made possible by a generous supply of Sch-6673 known under the trade mark Tindal, placed at our disposal by Schering Corporation, Bloomfield, N. J.

⁴ We wish to express our thanks and appreciation to Doctor Jackson A. Smith, Clinical Director, Illinois Psychiatric Institute, for his advice and suggestions. We also wish to thank Mrs. Shirley Engelhardt, R.N., Supervisor, Miss Myrna Willerton, R.N., Mrs. Frances Portenier, Assistant Supervisor, and Mrs. Geraldine Turley, Research Secretary.

schizophrenics has a distinct odor,⁵ then that odor may be the product of a characteristic metabolic disturbance which might be modified by the use of Sch-6673.

This report is preliminary and we are attempting to check these observations by making more exact determinations of

⁵ Smith, Kathleen., and Sines, Jacob O.: *Arch. Gen. Psychiat.*, 2: 184, Feb. 1960.

changes in odor, and non-psychotic patients are also being included in another group. We are aware that "bad" or "schizophrenic" odor is a highly subjective matter and that it is no longer fashionable to identify an illness by its odor. However, if a group of schizophrenic patients who "smell alike" can be identified and altered, then other more measurable variations may be sought.

THE USE OF A NEW ULTRA-SHORT-ACTING INTRAVENOUS ANESTHETIC IN SHOCK THERAPY

WILLIAM KARLINER, M.D.,¹ AND LOUIS J. PADULA, M.D.

Brevital Sodium (methohexital sodium²) is a new intravenous barbiturate anesthetic. It belongs to the oxybarbiturates which are known to be less toxic and ultra-short-acting anesthetic agents. Stoelting(2) reported that Brevital "proved three times as potent as pentothal sodium and 4½ times as potent as surital sodium."

Many psychiatrists use barbiturate anesthesia in conjunction with succinylcholine chloride modified electroshock therapy. Such an anesthesia helps to allay the patient's apprehension and fear of treatments. Moreover, this anesthesia eliminates the awareness of the unpleasant side-effects of succinylcholine chloride, such as muscular fasciculations and feelings of suffocation. Friedman(1) used Brevital as an intravenous anesthetic agent for electroshock in 72 patients. He stated that "the anesthetic efficiency, safety, rare incidence of complications, and ease of administration compared favorably with the commonly used thiobarbiturates."

The search for an improved method of treatment motivated us to clinically explore this new anesthetic in electroshock and Indoklon convulsive therapy. The high potency of Brevital and its ultra-short-acting duration necessitate a different technic of administration. Atropine sulfate 1/75 grain is given subcutaneously 30 minutes before the scheduled treatment. However, when

ever indicated, atropine may be given intravenously through a 22-gauge needle immediately preceding the treatment. The needle is left in situ and after removing the syringe containing the atropine, a 10 cc. syringe containing a 1% solution of Brevital (50 cc. distilled water added to bottle containing 500 mg. Brevital) is connected to it. Five to 10 cc. of Brevital solution (50 to 100 mg.) is usually adequate to anesthetize the patient. We found the rate of injection of one cc. of 1% solution in 5 seconds optimal. If injected too rapidly, more Brevital will be required, and transient apnea may be produced. The Brevital syringe is then removed and succinylcholine chloride is administered rapidly. Thirty seconds after termination of the injection of the muscle relaxant, the electric stimulation is given. In Indoklon convulsive treatment, the mask is tightly placed on the face and the bag gently squeezed as soon as the injections are finished.

Because of Brevital's ultra-short duration, the patients awaken much faster and are able to leave the treatment room much earlier than they could when thiobarbiturate anesthesia was used. It is also possible to treat a larger number of patients in a shorter period of time. In our series, one-third to one-half the amount of barbiturate was required to obtain adequate anesthesia. The small amount of Brevital used for anesthesia in conjunction with convulsive treatments, has hardly any ill-effect on the respiration of the patient. On the other hand, the larger amounts of thiobarbiturates

¹ 20 Franklin Rd., Scarsdale, N. Y.

² The Brevital Sodium used in this study was supplied by the Lilly Research Laboratories, Indianapolis, Ind.

which were required to obtain adequate anesthesia in electroshock, were a hazard because they increased the apnea which generally followed electroshock. We were also able to treat "poor risk" patients with cardiovascular disease, whom, in the past, we had been forced to treat without barbiturate anesthesia.

We gave Brevital anesthesia to 69 patients for succinylcholine modified electroshock or Indoklon convulsive treatments.³ Forty-seven patients had 158 electroshocks, and 22 had 105 Indoklon treatments. Two of our patients who suffered a moderately severe laryngospasm with Pentothal anesthesia did not have this side-effect when Brevital anesthesia was substituted. Some patients who complained of an unpleasant taste when given Pentothal anesthesia did

³ All treatments were given at West Hill Sanitarium, Riverdale, N. Y.

not notice this sensation with Brevital. Most patients showed less salivation with this oxybarbiturate anesthesia; thus the risk of aspiration was decreased. In some patients, Brevital reduced the electrical threshold, thereby enabling us to obtain a grand mal response with less voltage and time.

We found Brevital Sodium anesthesia to be the most useful anesthetic agent for electroshock and Indoklon convulsive therapy. It is ultra-short-acting, more powerful, and less toxic than other barbiturate anesthetics heretofore used. It is safe and easy to administer, and its use in convulsive treatment is recommended.

BIBLIOGRAPHY

1. Friedman, E.: *Dis. Nerv. Syst.*, Monograph Supplement, 20: 5, May 1959.
2. Stoelting, V. K.: *Anesthesia and Analgesia*, 36: 49, 1957.

COMBINED PHARMACO-FEVER TREATMENT WITH IMIPRAMINE (TOFRANIL) AND TYPHOID VACCINE IN THE MANAGEMENT OF DEPRESSIVE CONDITIONS

H. E. LEHMANN, M.D.¹

There are three major limitations of the pharmacotherapy of psychiatric depressions: 1. The time lag between commencement of therapy and onset of therapeutic effect; 2. Owing to the former, difficulties in the management of acutely suicidal patients; and 3. The ineffectiveness of pharmacotherapy in a proportion of refractory cases.

In an attempt to overcome some of these limitations, artificially induced pyrexia was combined with the administration of imipramine (Tofranil). The rationale for this approach was based on the hypothesis that the therapeutic effectiveness of the drug was to some degree a function of its availability in the target organ and consequently depended on the blood-brain barrier which controls the access of pharmacological agents to the central nervous system. Electroconvulsive therapy and fever are two physical treatment methods which are

known to lower the blood-brain barrier and to facilitate the passing of chemical substances from the circulatory system into the brain and the surrounding cerebrospinal fluid (1, 2, 3). In this connection one may speculate that the "shock-saving" effect of imipramine which has been observed in patients receiving both pharmacologic and convulsive therapy may also be interpreted as a "drug-saving" effect of electroconvulsive treatments. In other words, a few induced convulsions may rapidly lead to therapeutic concentrations of the drug in the central nervous system through lowering of the blood-brain barrier.

Since fever therapy is a much less drastic procedure than electroconvulsive treatment in regard to its physiological and psychological effects, we chose it as the accelerating physical factor in the pharmacotherapy of depressive states. We had observed the usefulness of medically induced pyrexia many years ago in facilitating the therapeutic action of thiamine chloride

¹ Verdun Protestant Hospital and McGill University, Montreal, Canada.

in cases of atrophy of the optic nerve. We had also been impressed with the beneficial though transient effects of fever therapy in certain cases of schizophrenia. Whether induced pyrexia actually increases the concentration of imipramine in the CSF has not yet been directly tested because we know of no reliable method to determine the amount of imipramine in the CSF accurately.

In addition to the physiological rationale we intended to harness the empirically established anxiety-reducing effect of any type of fever in the therapeutic management of agitated and suicidal patients. Finally, we expected that the continuous observation of a suicidal patient would be much easier if the patient was confined to bed and required some nursing care because of a mild physical illness.

Pyrexia was induced with typhoid fever vaccine administered intravenously. Twenty-five million killed bacteria were injected the first time. Our vaccine preparation contained 250,000,000 killed bacteria per 1.00 cc. We diluted 1.0 cc. of vaccine in 9.00 cc. of distilled water and injected 0.1 cc. of this dilution into the cubital vein. The second injection consisted of 50,000,000 bacteria, the third of 100,000,000 and the fourth of 200,000,000. Injections were given on successive or alternate days. According to the initial reaction the second, third and fourth doses were sometimes varied above or below the usual progressive increase. Three to four treatments were given in most cases. The patient's temperature begins to rise 2 to 3 hours after the intravenous injection of vaccine. Sometimes an initial chill is observed and the patient may complain of headache. The temperature, as a rule, does not rise above 103° and more frequently reaches only 101-102°. It usually recedes to the normal level within 5 hours. Some patients are quite resistant to the pyrexia producing effect of the vaccine and require higher doses. Imipramine in doses of 50 mg. is given intramuscularly three times a day concurrently with the fever therapy.

Our results were encouraging. We treated 26 depressed patients with the combination of imipramine and artificially induced pyrexia. All patients were suffering from functional affective disorders, *i.e.*, manic-

depressive, involutional or reactive depressions. Our criteria for a successful response were that the patients who had not received imipramine previously showed significant improvement within the first week of the combined imipramine-fever treatment or that improvement was noted within 2 weeks in those patients who had already been treated with the drug alone for 3 weeks without having shown any favourable change. In 15 of the 26 patients (58%) the combined pharmaco-fever treatment yielded these special criteria for a successful response. However, a successful response was more frequently obtained in those patients who had previously been refractory to imipramine therapy than in patients who had just been started on the drug. In other words, the combined pharmaco-fever treatment proved useful in cases who had previously been unresponsive to the drug alone but it could not be relied upon to the same extent to shorten the duration of the treatment. In a number of cases, however, distinct improvement was noted within a day or two of the combined therapy.

This was particularly gratifying in two out of three acutely suicidal patients in our series. One of these, a young woman, had been transferred to our hospital because she could no longer be managed in the psychiatric department of a general hospital where after a number of electro-convulsive treatments had been given she still persisted with the most determined attempts at self-destruction. On the first day in our hospital she tried to commit suicide on two occasions. She was immediately placed on pharmaco-fever therapy with imipramine and typhoid vaccine and her agitation and suicidal tendencies subsided with the first pyrexia. She was discharged recovered three weeks after admission. The other suicidal patient had been extremely tense and had been of considerable concern to the nursing staff because of several near-miss suicidal attempts in the past. While she still remained depressed for several weeks her tension and her suicidal drive were visibly reduced after the first two combined fever treatments and she no longer presented any problems after 4 treatments. Imipramine medication alone was then continued for

several weeks until complete remission had occurred. The third of our acutely suicidal patients did not improve and responded later to ECT.

It is our impression that the combined pharmacofever treatment with imipramine and typhoid vaccine merits a clinical trial in all cases of depression who present special problems because they fail to respond to the drug alone or because they are unusually tense and suicidal.

SUMMARY

Imipramine (Tofranil) therapy and artificial pyrexia obtained through the intravenous administration of typhoid vaccine in gradually increasing amounts were combined in the therapeutic management of special clinical problems encountered in depressed patients. Shortening of the time lag between the start of treatment and first significant improvement, a final favourable response in patients who at first had proved refractory to the drug and therapeutic control of acutely suicidal patients were the

criteria for successful responses. These special criteria were met in 15 of our 26 patients (58%) subjected to pharmacofever therapy. It is assumed that the mechanism which contributed to a favourable response include the physiological lowering of the blood-brain barrier with a resulting increase of drug concentration in the target organ. On the psychological side, the unspecific anxiety-reducing effects of pyrexia are noted as well as the facilitation of clinical and nursing management of acutely suicidal patients if they are confined to bed with a recurring fever of moderate degree.

BIBLIOGRAPHY

1. Aird, R. B., Strait, L. A., Pace, J. W., Hrenoff, M. K., and Bowditch, S. C.: *Arch. Neurol. Psychiat.*, **75**: 37, 1956.
2. Ferraro, A., Roisin, L., and Helfand, M.: *J. Neuropath. Exp. Neurol.*, **5**: 285, 1946.
3. Katzenelbogen, S.: Discussion—Blood-Brain Barrier. *In The Biology of Mental Health and Disease*, p. 47. N. Y.: Paul B. Hoeber, 1952.

A COMPARISON OF PERPHENAZINE, PROKETAZINE, NIALAMIDE AND MO-482 IN CHRONIC SCHIZOPHRENICS

NAUTTAM J. KOTHARI, M.D.,¹ JOHN C. SAUNDERS, M.D.,¹
NATHAN S. KLINE, M.D.,¹ AND JOSEPH A. GRIFFEN, M.D.²

Since the success of reserpine and chlorpromazine in institutionalized psychotic patients, new phrenotropic agents have become available for therapeutic trial. The initial encouraging report of the beneficial effect of iproniazid on blocked, regressed and apathetic schizophrenics, has initiated synthesis of new chemicals for clinical trial as psychoactivators. Many of these chemicals have the same property as iproniazid, that is, to inhibit monoamine oxidase and alleviate depression⁽¹⁾. Since the reports of the psychopharmacotherapeutic properties of available drugs are of wide range and varied, we have studied the pheno-

thiazines, perphenazine and proketazine, and the hydrazides, nialamide and MO-482 (1-1(2-phenylisopropyl)-1-methyl hydrazine).³ This evaluation was to determine the relative clinical efficacy of a new phenothiazine (proketazine) and a new hydrazide (MO-482) with compounds of known activity. In addition, we desired to better characterize the psychotic symptoms that may be alleviated with these two types of psychopharmacological agents, phenothiazines and hydrazides.

¹ Research Facility, Rockland State Hospital, Orangeburg, N. Y. and College of Physicians and Surgeons, Columbia University, New York City.

² Rockland State Hospital, Orangeburg, N. Y.

³ The perphenazine used in this study was supplied as Trilafon by Schering Corporation, Bloomfield, N. J.; the proketazine by Wyeth Laboratories, Philadelphia, Pa.; the nialamide was supplied as Niamid by Chas. Pfizer & Co., Inc., Brooklyn, N. Y. and MO-482 (1-1(2-phenylisopropyl)-1-methyl hydrazide) by Abbott Laboratories, North Chicago, Ill.

METHODS

One hundred schizophrenics with an average duration of 10 years of hospitalization, were selected for this study. They were divided into 4 groups of 25 each. In each group there were about an equal number of (a) schizophrenics with Bleuler's secondary symptoms of delusions, hallucinations or dereistic behavior and (b) schizophrenics with Bleuler's primary symptoms of autism with detachment from reality, disturbances of affectivity and associational deprivation. Each group received either perphenazine, proketazine, nialamide or MO-482. The patients initially received the minimal oral therapeutic dose. The dosage was raised twice a week, either to an optimal beneficial level or to the maximal below that of untoward reactions. The daily therapeutic range was 16 to 64 mg. perphenazine, 50 to 600 mg. proketazine, 50 to 600 mg. nialamide and 10 to 100 mg. MO-482. If side effects occurred, the dose was reduced to a level at which they disappeared. After 12 weeks on this therapeutic range, the medication was gradually withdrawn.

RESULTS

The blood pressure of each patient was taken weekly during the treatment. A fall of 10 to 20 mm. Hg. in diastolic pressure was observed in 16 patients each on perphenazine and proketazine, in 9 patients on nialamide and in 12 on MO-482. One patient on perphenazine, 2 on proketazine and 2 on MO-482 had a fall of 20 to 30 mm. Hg. The remaining patients had a fall of less than 10 mm. Hg.

A sedative action by the phenothiazines or a feeling of well being by the hydrazides, was recognized as slight improvement. A reduction of hypermotility of thought and behavior with phenothiazines or a partial contact with reality and an interest in their environment with the hydrazides was interpreted as moderate improvement. With either group of drugs the disappearance of disorders of thought and affect, accompanied by integration of personality, signified marked improvement.

Improvement was observed in 11 patients on perphenazine, 11 on proketazine, 11 on nialamide and 7 on MO-482. Moderate to marked improvement was observed in 7

patients on perphenazine, 8 patients on proketazine, 3 on nialamide and 5 on MO-482. Perphenazine had slight to marked effect on the secondary symptoms of 10 patients and 1 patient with primary symptoms became worse. Proketazine produced slight to marked improvement in 7 patients with secondary and 4 patients with primary symptoms. Nialamide and MO-482 had the most beneficial effect on the primary symptoms of 10 and 5 patients and on secondary symptoms of 1 and 2 patients respectively. Three patients with secondary symptoms became worse with MO-482. One patient receiving 50 mg. proketazine died after 8 weeks of treatment. Autopsy revealed generalized arteriosclerosis and ischemic heart without histopathological evidence of drug reaction. Five patients on MO-482, 3 on nialamide, 1 on proketazine and 1 on perphenazine became disturbed. With reduced medication, they became quiet and showed clinical improvement. Two patients on proketazine became akathic. Rigidity appeared in 1 patient on perphenazine and 3 on proketazine. One patient on proketazine presented signs of generalized tremor and 1 patient receiving perphenazine complained of drowsiness. A syncopal attack was observed in 2 patients receiving MO-482.

DISCUSSION

The results indicate that the therapeutic efficacy of proketazine is about the same as that of perphenazine; the number of patients showing improvement with nialamide is larger than that with MO-482, but the clinical efficacy from nialamide is less than that observed with MO-482. Reserpine and phenothiazines in schizophrenics have been observed to counteract disorders of thought, hyperactivity or both (2, 3). Perphenazine and proketazine have beneficial effect in patients with delusions, hallucinations or with dereistic behavior. Nialamide and MO-482 are effective in disturbances of affectivity, autism with detachment from reality, associational deprivation and ambivalence of affect and will. Phenothiazines fall into a generalized category of psychoinhibitors and hydrazides into that of psychoactivators. Phenothiazines have sedative as well as antipsychotic activity. By nature of this dual activity, these drugs reduce

hypermotility of behavior, aberrant thought, and the accompanying emotional overflow (4). The monoamine oxidase inhibiting hydrazides have more energizing effect than stimulating and thereby induce a feeling of well being (eudaemonia). The psychoinhibitors are useful in alleviating hyperactivity, euphoria, delusions and hallucinations which are the side effects of the psychoactivators.

Phenothiazines, reportedly having high incidence of side effects, are among the most effective psychotherapeutic agents; our impression is that hydrazides follow the same pattern. Two of the 3 patients on nialamide and 2 of the 5 on MO-482 who showed secondary symptomatic disturbances improved after the discontinuance of treatment.

There was no correlation between the dosage and degree of improvement since patients require individualization of therapy.

SUMMARY

Of 25 chronic schizophrenics in each group on perphenazine and proketazone, 11

patients on each drug showed improvement. The patients with delusions, hallucinations and hyperactivity had the maximal benefit from these psychoinhibiting drugs. Of 25 chronic schizophrenics in each group, 11 improved with nialamide and 7 with MO-482. Seven patients on perphenazine and 8 on proketazone improved either to a moderate or marked degree. Moderate to marked improvement was seen in 3 and 5 patients on nialamide and MO-482 respectively. Apathetic and autistic patients had the maximal benefit from the psychoactivating drugs. These drugs are relatively safe as no serious untoward clinical or laboratory results were observed.

BIBLIOGRAPHY

1. Bailey, S. d'A., Bucci, L., Gosline, E., Kline, N. S., Park, I. H., Rochlin, D., Saunders, J. C., and Vaisberg, M.: *Annals N. Y. Acad. Sci.*, **80** : 3, 652, 1959.
2. Barsa, J. A.: *Am. J. Psychiat.*, **114** : 74, 1957.
3. Gosline, E., Bluestone, H., and Saunders, J. C.: *J. Clin. & Exper. Psychopath.* (In Press.)
4. Himwich, H. E.: *Science*, **127** : 60, 1958.

ATROPINE-LIKE POISONING DUE TO TRANQUILIZING AGENTS

HARBHAJAN SINGH, M.D.¹

Atropine-like poisoning as a side effect of tranquilizers has been mentioned, from time to time, by some drug companies. Mahrer, Bergman, and Estren² reported an atropine-like poisoning reaction in a patient treated 6 weeks with Pacatal and Compazine. The reaction was concomitant with the rise of atmospheric temperature and humidity.

Mild anticholinergic reactions such as constipation, blurring of vision, dryness of mouth and skin, are very common side-effects of tranquilizers. The severe anticholinergic reaction (atropine-like poisoning reaction) in the case mentioned above, was thought to have resulted from synergistic reaction of Pacatal and Compazine.

We have recently observed such atropine-like reaction in a patient treated with Nardil (phenylethylhydrazine) and Tofranil (imipramine hydrochloride).

C. V., a 55-year-old white female was admitted to our hospital for the third time in May 1960, because of depression, self depreciation and guilt feelings. Her case was diagnosed involutional depressive reaction. On May 10, she was put on Nardil—15 mg. q.i.d. but there was no significant response. On May 23, she was put on I.M., Tofranil—25 mg. t.i.d. Twenty minutes after receiving the first injection, the patient became agitated, tremulous and delirious. This was followed by generalized clonic convulsions and hyperthermia of 105.8° F. Physical findings revealed flushed face, warm dry skin and dry mouth. Pupils were dilated and not reacting to light, pulse 200/min., respiration 30/min. There was

¹ Chief of Admissions and Intensive Treatment area, Mental Health Institute, Independence, Iowa.

² *Am. J. Psychiat.* : Oct. 1958.

no response to pin prick or other stimuli. Other physical and neurological findings were negative.

Patient was treated with Aspirin, I.M. sodium amytal, and I.V. fluids. She was also covered with a wet sheet upon which 2 fans were directed. In 4 hours the temperature came down to 100.5° F., the convulsions stopped and patient started to respond. After 12 hours her temperature was down to 99° F., her pupils were still somewhat dilated and did not react to light until 48 hours later.

Laboratory studies of urinalysis and CBC, on admission and on 2 consecutive days after the reaction, were within normal limits. An EEG taken 2 days following the reaction, was normal.

DISCUSSION

Since it is not yet fully known how various tranquilizers and energizers work

synergetically, it is difficult to ascertain if the reaction (a) was due purely to Tofranil which, though an energizer, has a chemical structure similar to phenothiazines, (b) if it was due to synergetic action of Tofranil and Nardil (monoamine oxidase inhibitor) or (c) if it was due to any idiosyncrasy on the part of the patient.

Two years ago we had another patient who developed a similar reaction to a combination of Pacatal and Sparine (both phenothiazines). The case was not reported.

The present case is being reported in order to caution the simultaneous use of various tranquilizers and energizers and to emphasize the need of further research in this area.

CLINICAL AND THEORETICAL OBSERVATIONS ON PHENELZINE, (NARDIL¹), AN ANTIDEPRESSANT AGENT²

CAPTAIN ROBERT A. COLE, AND CAPTAIN MYRON F. WEINER³

Apathy, anergy, withdrawal, and depression are symptoms of many functional and organic central nervous system disturbances. Frequently, psychotherapy alone does not produce sufficient, or sufficiently rapid improvement. In this situation, drug therapy seems to be a logical primary or adjunctive treatment.

Phenelzine inhibits the *in vivo* action of monoamine oxidase, an enzyme found in greatest concentration in brain tissue in the hypothalamus and brain stem. Monoamine oxidase oxidizes a number of monoamines, including serotonin, at a rapid rate and has a distribution in the brain corresponding to that of serotonin. Monoamine oxidase inhibitors have been of value in states characterized by psychic and physiologic depression. Although there is no unequivocal

proof, it might be postulated that a state of relative serotonin deficiency exists in certain areas or pathways of the brain. Rhythmic, pulsatile activity has been seen in oligodendrocytes in tissue culture. There is evidence to indicate that oligodendrocytes may participate in the removal of CO₂ from the environment of the active neuron, that their function may be related to the formation and maintenance of myelin, or that they may act as "insulators" of synaptic areas on the surface of neurons. These data indicate that oligodendrocytes may be important in the process of active neural conduction. The rate of pulsation of oligodendrocytes in tissue culture increases when serotonin is added to the culture medium. Reserpine, which reverses or counteracts many of the physiologic effects of serotonin, has been known to produce depressive symptoms. Reserpine-like substances decrease the rate of pulsation of these cells, thus demonstrating a physiological activity correlating with a corresponding change in psychological activity.

The ability of phenelzine to "energize" apathetic patients and to counteract depres-

¹ Trade Mark, Warner Chilcott Company.

² Presented February 5, 1960, at the Third Annual Meeting of Air Force Internists and Allied Specialists, USAF Hospital, Lackland, Lackland Air Force Base, Texas.

This paper represents the personal viewpoints of the authors and is not to be construed as a statement of official Air Force policy.

³ Psychiatry Service, USAF M.C., USAF Hospital, Lackland, Tex.

sion was evaluated clinically by the authors. On the basis of the signs and symptoms of apathy, anergy, withdrawal, and depression, 31 patients were selected. Included in the group were 14 cases of neurotic depression, 4 cases of chronic brain syndrome with depression, 2 cases of involutional melancholia, 8 depressed schizophrenics, and 3 non-depressed schizophrenics. There were 14 males and 17 females, both inpatients and outpatients, ranging in age from 17 to 59. The mean duration of symptoms was 15 months, with a range of from 1 week to 6 years. Periodic physical and mental status examinations, liver function studies, and routine hematologic studies were done. The degree of improvement was estimated both clinically and by the subjective reports of the patients. The drug was administered for periods up to 6 months in doses ranging from 15 to 45 mg. per day. Usually, 15 mg. was given t.i.d. for 1 to 4 weeks, followed by a gradual reduction to a maintenance dosage of 15 mg. per day. No external controls were used. Many of the patients served as their own controls, having previously undergone prolonged trials of therapy.

Sixty-eight per cent of the entire group showed improvement. In general, some signs of improvement were shown during the first week of treatment. The symptoms of withdrawal, anergy, apathy, depression, weight loss, anorexia, agitation, somatic complaints, and insomnia were rated individually. With the exception of agitation, each symptom showed improvement commensurate with the overall rate of improvement. There was no correlation between duration or severity of symptoms and response to phenelzine. None of the non-depressed schizophrenics improved. No abnormality of hematologic or liver function studies occurred. Side effects consisted of one case of marked euphoria, two cases of severe agitation, one case of transient severe headache, one case of transient insomnia, one case of a single missed menstrual period, one case of transient ankle edema, one case of postural hypotension and a "drugged" sensation, and 4 cases of a spontaneous decrease in smoking. The case of euphoria responded to a reduction in dosage. Increase in agitation generally responded to chlorpromazine, 100-200 mg. per day.

A COMPARATIVE CONTROLLED STUDY WITH CHLORDIAZEPOXIDE¹

MARSHALL E. SMITH, M.D.²

Three distinct studies were undertaken with a new psychotherapeutic agent, chlordiazepoxide, in the treatment of psychotic and/or psychoneurotic patients. The first, a pilot study on 10 chronic schizophrenic patients, established the drug's safety and calming effect with a lessening of anxiety, and provided information as to dosage and onset of action.

With this knowledge the second study was initiated, a comparative blind evaluation employing 3 groups of 15 patients each, matched as to age (average 41 years), duration of illness (average 12.5 years) and predominant symptomatology (chronic schizophrenia in 37 and manic-depression in 4).

Group A received placebo; Group B, chlorpromazine; Group C, chlordiazepoxide. Two patients from Groups B and C were lost from the study for reasons not connected with drug administration. Medications were identical in appearance. Initial dose was one capsule (50 mg. of active material) t.i.d. with increases of one capsule every three days until a total of 12 to 14 capsules per day was reached. Increments depended on therapeutic response and absence of side effects. The study lasted for 14 weeks. Evaluation was based on general impressions of the observers and on a rating behavior scale.

Five categories were formulated to indicate results of treatment: maximal-complete disappearance of symptoms and ability

¹ Librium, Hoffmann-La Roche Inc., Nutley, N. J.

² 124 Whitfield St., Guilford, Conn.

to participate in the hospital treatment program; moderate—partial disappearance of psychotic symptoms and change in behavior; minimal—no change in symptoms but partial change in behavior; no change; and worse—psychotic symptomatology more apparent and behavior more uncontrolled.

Results were maximal in 1 patient receiving chlordiazepoxide; moderate in 1 patient receiving chlorpromazine and 2 who received chlordiazepoxide; minimal in 5 of the chlordiazepoxide group. Thus improvement occurred in 8 patients on chlordiazepoxide therapy, 1 patient on chlorpromazine therapy and none of the patients on placebo medication. There was no change in 5, 8 and 5, respectively, in Groups A, B, and C. Ten patients became worse on placebo, 4 and 2 respectively on chlorpromazine and chlordiazepoxide.

Side effects in patients who received chlorpromazine in doses above 400 mg. daily were: extrapyramidal stimulation in 4 and ataxia in 3. In patients receiving chlordiazepoxide in doses above 600 mg. daily (20 times the recommended dose), extrapyramidal stimulation was seen in 4 and ataxia in 2, while 2 patients experienced hypermotor activity on 150 mg. daily. Routine laboratory studies performed at 2-week intervals revealed no toxic effects on the liver, blood or kidneys in any patient.

In the third study, an additional 143 patients, including 87 chronic schizophrenics, 31 acute psychotics and 25 psychoneurotics, were treated with chlordiazepoxide for from 12 to 20 weeks and the patients followed up to 8 months. Using

the same criteria for evaluation as in the blind study, varying degrees of improvement were shown in 65 or 74.7% of the schizophrenics, 11 showing no change, and 11 becoming worse; in 17 or 54.8% of the acute psychotics, 5 without change, and 9 worse. In 7 of the 11 patients with anxiety reactions the response observed permitted them to enter into psychotherapy. A marked response was noted in 3 of 6 obsessive-compulsives and a good response in 3 of 6 patients suffering from neurotic depression. In the latter 3 patients a great deal of anxiety and agitation was coupled with depression, while the 3 who did not respond did not initially demonstrate a great deal of tension and anxiety.

Two patients with psychophysiologic gastrointestinal disturbances became asymptomatic after 1 and 5 weeks of therapy respectively, and have remained asymptomatic for 5 and 8 months following its discontinuation. At doses ranging from 250 mg. to 400 mg., considerably higher than those used by earlier investigators, the side effects observed were: ataxia, 9, extrapyramidal stimulation, 7, hypermotor activity, 6; and ataxia and extrapyramidal symptoms, 3. When the dose was cut in half the hypermotor activity decreased in 72 hours in all cases.

Chlordiazepoxide was found to be an effective agent for the relief of anxiety and tension with an associated improvement in social behavior. Patients entered into treatment and ward activities more readily and in most cases were more accessible to therapy.

PRELIMINARY REPORTS

A PRELIMINARY REPORT ON THE USE OF STELAZINE AND PARNATE IN CHRONIC REGRESSED AND WITHDRAWN PATIENTS

HARBHAJAN SINGH, M.D., AND RICHARD M. FREE, M.D.¹

In order to ascertain the value of using energizers in treating chronic schizophrenic patients, various studies have been conducted but the results have been somewhat contradictory and inconclusive.

The use of new potent phenothiazines, Stelazine (trifluoperazine) and Prolixin (fluphenazine) in treating regressed and apathetic chronic schizophrenic patients has been somewhat promising.

The aim of this study was to ascertain the effects of one of the most potent antipsychotic tranquilizers (Stelazine) and a potent psychic energizer (Parnate)² in treating chronic withdrawn apathetic patients. The subjects in this study were 25 (12 males and 13 females) withdrawn, apathetic, regressed, chronic patients selected on the basis of having been treated in the past with various tranquilizers, including Stelazine, but having shown no improvement, whatsoever. Their immediate environment, ward placement and participation in hospital activities were kept as nearly the same during the study as before. Each patient was kept off all medications for at least one month before starting the study. By this manner of selection, it was hoped that the patients would act as their own controls. This preliminary study lasted for 6 weeks.

Patients' ages ranged from 28 to 75 years with a mean age of 50.1 years. They had been hospitalized continuously from 2 months to 35 years with an average hospitalization period of 12.9 years. Their official diagnoses varied as follows:

Schizophrenia, all types	14
Manic-depressive Depressed	3
Manic-depressive Manic	1

¹ Chief of Admission & Intensive Area & Director of Education & Research, respectively, Mental Health Institute, Independence, Iowa.

² Trifluoperazine & S.K.F. 385 (a new mono oxidase inhibitor) supplied by S.K.F. Laboratories.

Mental Deficiency with Psychosis	3
Mental Deficiency with Behavioral Reaction	1
C.B.S. with Huntington's Chorea	1
C.B.S. with Alcoholic Deterioration	1
Psychoneurotic Reaction, Depression	1

PROCEDURE

All patients were started, simultaneously, on Stelazine (2 mg. b.i.d. or t.i.d.) and Parnate (10 mg. t.i.d.). Weekly dosage adjustment of only one drug was attempted at a time, first with Stelazine until optimum dosage, or a dose of 5 mg. b.i.d. was reached. After this, adjustment of Parnate was tried up to optimum level or maximum dose of 20 mg. q.i.d. All patients were told that they were going to be treated with a new drug which might help them. Laboratory studies consisted of weekly estimation of C.B.C., sedimentation rate, Alkaline phosphatase, and urinalysis. Blood pressures were recorded twice weekly except as otherwise indicated.

Evaluations were made weekly. Patients were rated as "much improved," "improved," "same," and "worse" depending on collective agreement of the doctor, nurse, and patient.

The points stressed in rating were: lessening of psychomotor retardation, more socialization, manageability, display of affect and interest, and decrease or disappearance of hallucinations and delusions.

Eight of the 25 patients had to be taken off the study because of severe hypotensive reaction (4), increase in Alkaline phosphatase (3), and acute psychotic excitement (1).

At the end of 6 weeks the final ratings were as follows:

Much improved	4	23.5%
Improved	9	52.9%
Same	2	11.7%
Worse	2	11.7%

Treatment with Stelazine and Parnate seems to have been helpful in all diagnostic categories tried in this study. All of them, however, had common denominators: chronicity and withdrawal. In the "much improved" category there were 2 schizophrenics, 1 mental defective with psychotic reaction, and 1 manic-depressive manic. In the "improved" category there were 5 schizophrenics, 2 manic-depressive depressed, 2 mental defectives with psychosis. In the "same" category both were schizophrenic patients, while the "worse" category had 1 schizophrenic patient and 1 C.B.S. with Huntington's Chorea.

Mild side effects noted included agitation, insomnia, akathisia, drowsiness, difficult micturition and hypotension.

SUMMARY

The combination of a very potent tranquilizer and an energizer was tried on 25 chronic regressed, withdrawn, patients with various diagnoses. Eight of the patients had to be dropped from the study because of complications. The results of the present pilot study are promising; however, the above-mentioned combination of drugs requires further trials and research before more definitive conclusions can be reached.

HISTORICAL NOTES

GEORG ERNST STAHL (1660-1734)

ERNEST HARMS, Ph.D.¹

Like Paracelsus, Georg Ernst Stahl is better known for what his contemporaries and later medical writers said against him than for what he himself represented. However, he was undoubtedly one of the most influential medical theorists of his time, and as is usual, he was attacked as an enemy of the point of view of his attacker. To the materialist of his day he was a pietist, and to the spiritualist he was a materialist. Actually he was neither. He was a most radical realist with an amazing differential sensitivity which placed him on a new, higher level between the two major camps. True, he was difficult to understand. He wrote a baroque Latin mingled with contemporary German expressions. If we did not have the admirable translation of his *Theoria Medica Vera* by the psychiatrist Karl Wilhelm Ideler, in the beautiful and lucid German of a Romantic essayist, we would be hopelessly lost in trying to understand him. In this remarkable Germanization, the brilliance of Stahl's basic deductions becomes wonderfully clear.

As Paracelsus once stood up against the alchemistic metaphysicists and tried to clear the air for the formulation of natural scientific laws, so Stahl stood up against the "man a machine" mechanistic materialism of his age. He applied his rationalistic thinking to the differentiation between matter and organism: A living organism cannot be only mechanically functioning matter; the body begins to disintegrate at the moment of death; life must be an addition to matter. This additional element Stahl designates as "*animus*," which, however, is not a deistic spiritual element but a "*motus*," as he calls it in his Latin, a movement, a dynamic element—which was, in the following century, designated as "psyche." The Ger-

man medical historian Kirchoff believed that it was identical with Hippocrates' "*physis*." The placing of the human psyche "between heaven (not spiritual) and earth (not a physiological element)," as he himself expresses it, is the great achievement of Stahl. Despite the claims that the psychoanalytical concepts of this century were the first to have developed the dynamic aspect of psychology, its real discoverer and first representative was G. E. Stahl. Stahl's starting point was the need for a clear teleological concept as the basis of human existence; the final result was what, in its most modern form, C. G. Jung has formulated as the human psyche as a closed unit of a dynamic system. It was especially this clear and systematic thinking that accounts for Stahl's great influence, which during his time extended all over Europe.

To be historically objective one must hand to Paracelsus the palm for having initiated psychotherapy by his demand that the insane be viewed not as persons possessed by the devil and punished by God, but simply as sick human individuals. But Stahl's influence on the development of psychiatry was no less great, since he was the first to demand concrete psychological treatment. Although hardly a practitioner in the care of the insane, one of his most important writings, his *De Animi Morbis* (1708), was devoted to psychiatric treatment methods. He clearly distinguished between mental diseases resulting from actual bad behavior and those physiologically conditioned, among which delirium was for him the most characteristic. He also clearly differentiated between psychosomatic and somato-psychological influences. The latter, normal functions, he described in great detail in his more scientific version of the old concept of the four temperaments. He saw *animus* functions as influencing the body psychosomatically in a dual way, by contracting and extend-

¹ Editor of *The Nervous Child*, 30 West 58th St., New York 19, N. Y.

ing—a concept that attained its classical form in Goethe's "systole and diastole." Abnormal functioning of the *animus* is the major cause of all insanity. Kirchoff correctly pointed out that the first clear psychiatric differentiation—Langermann's diopathic and sympathetic mental ailment—goes back to this concept of Stahl's. There can be no doubt that the great psychiatrists of the

past century—Reil, Heinroth, and Griesinger—were profoundly influenced by Stahl, who was their major source of thought. When the history of psychiatry matures to become an objective survey and not merely the history of this or that school of psychiatric thought, it will have to recognize Georg Ernst Stahl as one of the four great fathers of psychiatry.

POEMS

PERFECTION AND RETREAT

by EARL D. BOND, M.D.

A Gentleman

A gentleman, the soul of honor
Preferred the rose
Because of its thorns
Preferred to punish himself
And incidentally others
Pleasures for him
Were three parts pain
A knight, he fought for truth
Rather than for men and women
Fearful, he did brave things
Weak, he became strong
To endure, to grasp, to suffer

Never was he satisfied
Until too soon
He broke his lance
Against astonished Death
And ended gratefully
A dutiful existence

"Excelsior"

He knew frustration all his life
And while he raged at compromise
He had to deal with men less wise
And could not find a perfect wife

And when he tried to write a book
He could not get beyond page one
So much there was still to be done
A point he could not overlook

Poor boy, he thought that he was right
To climb a mountain late at night
A snowdrift cooled the fevered quest
Of one who gave up good for best

The Next Step

Let the dull crowd climb
I remain
In my own perfection
In my own province
Where I make the rules
Reject the burden
Take the dream
Not unhappy as I sleep

Across a gulf
Hands stretch out
I almost pity them
From my nest
Beneath the heart

Lover and loved
Subject and object
In the clear pool
I see myself
Safe from
The next step

Perfectionist

I follow a star that is
Above the heads of men
Athirst I stoop to drink
And the water recedes

My lips never touch completion
Always Alpha, Alpha, Alpha
Never Omega period finis end
Too much becomes too little
Is there some fault
That makes perfection perfect?

Infant-Adult

Mother and Wife and Nurse

Three in one

She feeds me

Wheels me

With other babies

On the Boardwalk

She is my slave

"I toil not, neither do I spin"

Ruler of a tiny realm

Master of Time

Secure in my dependence

Powerful in my weakness

To some extent, I live

Double Denial

"Buy me golden shoes, Mother,

And a servant to make them shine."

"You shall have what you choose, My Son,

Because you are wholly mine."

"Give me your house and lands, Mother,

Give me a coach and four."

"I place them in your hands, My Son,

I wish I could give more."

"Tomorrow I must die, My Son,

Comfort me while I live."

"Why should I answer your cry, Mother,

When you have nought to give."

Without Love

Love's substitute, ambition grew

He worked all day and grudged his
sleep

At times he worked the whole night
through

Such toil as made the angels weep

And when he reached his pinnacle

The goal to which his labor led

He faced the inadmissible

And put a bullet through his head

Queen

The Queen of beauty

Withdrew to her castle

On a lonely hill

Where all winds moaned

And no children played

Around the house

Tiny graves for those children

Who never were

No people came

But many ghosts

Her disciplined thoughts

Never strayed

Beyond the walls

No sorrow, no grief

Embedded in the amber

Of her self sufficiency

COMMENTS

RANDOM REFLECTIONS

After a period of a generation or more in psychiatry, one is tempted to interrupt the lively present with "flash-backs" to earlier decades. As a budding medical man the "roaring twenties" fascinated me, —the feverish thirst for new knowledge and a better way of life that usually follows great wars. In the young discipline of psychiatry it took the form of rooting out the evil "id" from man's unconscious. Evil was in-born to our Victorian parents as they looked around at the cruel sweat shops, the slums, and the worshipping of money as though it had personality in its own right. To be sure, doctors in the twenties along with everyone else were making money in the booming market, but it was mostly an adventurous game plus a spirit—of general rebellion against the old status quo with its sticky and over-rigid conformity patterns.

Another "flash-back," to the next decade, sees these same doctors seriously discussing their professional futures through the smoky glasses of the economic depression. Those of us in teaching positions literally had to snatch live bodies from the charity clinics to teach with before the local medical society could declare these people "out of bounds." They could afford to pay \$.25 a visit to their family doctor, so what right had they to be treated free in the tax-supported general hospital! Indeed, the thirst for new knowledge in this decade was peculiarly lacking, or so it seemed, except for the few whose livelihood depended on research along with their teaching.

The favored ones in those days, including doctors, were those on salary. In that bitter day most people were more concerned with holding onto their jobs for bread and butter than with the advancement of knowledge. Visits to veterans hospitals before the period of re-vitalization of the Veterans Administration following World War II were depressing indeed. Many doctors in our public institutions who got their jobs more through "pull" than skill slept at staff conferences and made little or no contribution

to the advancement of the specialty. It was heart-breaking for the few dedicated career doctors in these organizations. It was in general a dull, contracted constipated era.

Flash-back Number Three!—The post-war mid-forties found doctors pouring out of armed services full of ambition and idealism to practice the kind of comprehensive medicine they had enjoyed in the better Army hospitals and clinics where the sick soldier had the benefit of specialists pooling their knowledge in practically all fields for his benefit. I watched these same doctors as they came home eager to do the same for their civilian patients. It was a joy to feel their enthusiasm and to know that they truly held the practice of good medicine above other considerations, whether that was solo practice in rural areas or some form of group practice in the city.

Flash-back Number Four!—Medical needs of the public had so piled up during the war that every doctor soon found his office swamped with patients. Money seemed of little consequence to the latter. An appointment with their doctor was all that mattered. The doctor had to meet this civilian emergency the best he could. Coronaries as well as money came more readily to doctors than ever before,—big cars, big suburban homes, but with little time to enjoy them or the wives and children who lived in them. Many of these over-worked physicians expressed deep concern over the situation. Not enough doctors were available to help them handle the loads much less do the kind of job they had hoped to do. Many of these able men would have taken full time teaching and research positions had enough medical school openings existed. More and more hospitals were built and fortunately more and more doctors' buildings erected where the practitioner and the specialist could confer and at the same time advance each other's knowledge. The financial situation of the country was such that had there been twice the number of psychiatrists in

private practice their offices too would have been filled with patients apparently willing and able to pay their doctor as well as the mounting costs of hospitalization. This busy period of lush practice enabled both doctor and patient to profit by a wave of comprehensive medical practice never seen before. Contrary to some savants whose opinion I respect, the Money-happy Fifties have not really left the medical profession less of a "profession" and more of a "trade." Doctors have been blamed for a situation they did not create and could not by themselves change. A great depression and a World War left powerful repercussions.

Contemporary 1960's!—No recession is yet in sight but thoughtful doctors are worried about their profession. Can it meet the needs of the future? In spite of doctors' large incomes there are fewer applicants for medical school and fewer "A" students in proportion applying, if we take the country as a whole. All traditional fields of graduate work, I understand, are having recruitment problems. New alluring fields are now competing for the able student, offering prestige as well as earlier financial returns. A few more medical schools are opening, but hardly enough to catch up with our expanding population. Doctors are as busy or busier than ever. As neglected post-war medical needs were met and new insurance plans developed, the public's appetite for more and better medical care resulted. As Ford's higher wages policy enabled workers to buy more automobiles, it also bought more medical care. Higher wages for laborers often carried with them health insurance benefits which pay up to \$10,000 for prolonged illnesses. But woe to the white-collared man today who does not work for such a firm! One prolonged mental or physical illness can take his house and automobile away.

In time this will be remedied we hope by voluntary health insurance, or certainly by some equally efficient as well as economical system of medical care. In the meantime, however, there are and will be for some time ahead a large number of respectable people who cannot afford private medical care and yet do not want to feel they are therefore second class citizens. Doctors cannot alone remedy this situation. They

cannot help with the high cost of hospitalization. While private and public insurance agencies are working out these basic problems, doctors, bankers and hospital administrators could help make this transition period much less catastrophic for this important segment of our citizenry. Nowhere in the private practice of medicine is this so-called two-class society more in evidence than in psychiatry. There are far too few private practitioners of psychiatry in this country as a whole to solve the problem. Many large communities never had a psychiatrist in private practice until after World War II. The practice of psychiatry in the community is young with tender shoulders. Nevertheless, there are some things we might be able to do besides making our prices reasonable, as was again urged on all physicians recently by Dr. Louis M. Orr, Retiring President of the A.M.A. It is not charity from doctors that people want, but some organized resource whereby one can at least see a doctor when he is most in need of one at fees geared to his pocket book.

In this regard there is an interesting experiment in cutting down the waiting list in a child guidance clinic with which I am acquainted. Private psychiatrists might do some similar experimenting along these lines. This clinic decided to open a Thursday afternoon emergency psychiatric examination clinic for parents and their problem children. After an intake interview by a skilled social worker, both child and parents were seen first together then separately for the first hour. A conference was then held by the psychiatric resident and social worker with a senior staff person as consultant and recommendations agreed upon; then a final session with the parents with or without the child present, and the examination was dictated for the record.

This afternoon clinic cut the traditional treatment waiting list of the clinic to less than half. It did more than that. The clinic was able to refer half of these cases to other agencies in the community for help, with the clinic staff offering "stand by" consultation service when needed. The families so referred felt satisfied with such an examination and were reported to have cooperated well with the other agencies to whom they were referred,—such as visiting

teachers, family welfare agencies, pediatricians, etc. In one month three adolescents with incipient schizophrenia were referred to hospitals, two having full health insurance coverage through their fathers' firms for private hospital treatment. Incidentally they were previously unaware of this kind of coverage.

Today when some psychiatrists are deliberately taking extra time off to cut income, adaptation of this or some other plan to their own way of working could render crucial help to many at the time when an expert appraisal of their problems is most needed. Needless to say the referring family physician is always grateful for such examination and recommendations. With the community paying the salary of the social workers, fees taking care of the overhead,

and each psychiatrist volunteering two hours of time each week, I see no reason why such an examination and referral service by psychiatrists in private practice could not be put into operation. Unfortunately creative ideas and good motivation often go to waste for lack of proper machinery to express them. Here is where experts in psychology, social work and community planning could help us.

Let us not wait for others with less training in the social side of medicine to act for us as they might do all too quickly. Where the need is made evident may we not assume that psychiatrists in private practice will be found willing to sacrifice a lucrative afternoon in their offices to give clinic service such as outlined?

S. S. A.

INTOLERANCE

The intolerance of old age is matched by the intolerance of youth. The cure for the former is the memory of one's past. The only cure for the latter is contained in the sad experiences which no generation can escape.

—C. CHARLES BURLINGAME

CORRESPONDENCE

GENETIC FACTORS IN SCHIZOPHRENIA

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY:

SIR: The good article in the May issue, "Genetic Factors in Schizophrenia," by Dr. Ian Gregory, indicates that, although there is suggestive evidence that heredity may play some role in the etiology of this disease, the studies published up to the present fail to support the hypotheses advanced as to a specific genetic mechanism. These studies have all dealt only with overt schizophrenia and treated it as a single condition rather than the group of diseases Bleuler hypothesized may exist. As a partial antidote to the pessimism which this invalidation of previous work may engender, I wish to note an alternative approach which has proved more rewarding in the study of other human diseases. (I have drawn heavily from the ideas of Neel, J. V., expressed in *Am. J. Hum. Genet.* 7: 1-14, 1955, and in *Medicine* 26: 115-153, 1947.)

In a number of diseases, a variation from the normal so mild as not to be called illness has proved in the study of pedigrees to be rather easily fitted into the small whole number ratios of classical genetics, while the morbid condition which was an exaggeration of the minor variation appeared in a distribution which was genetically meaningless. Using gout as one of various possible examples, with elevated blood uric acid as the minor variation, elevation appeared in the parents, siblings, and children of individuals with elevations in numbers approximating the 1:1 ratio which suggests a single dominant gene almost completely penetrant. Appearance of gout in these families was sporadic, meaning that

if overt disease had been the criterion studied, the genetics of this disease would be no better understood than that of schizophrenia.

"Schizoidness" or various partial components of the schizoid personality may well be more consistent with gene behavior than schizophrenia. The problems immediately arise as to which traits are exclusively schizoid, as to where to draw the line between abnormality and normality for any component trait, and as to whether these traits may be determined by environment. It seems to me unnecessary, even undesirable, to decide which component traits on which to concentrate prior to the collection of pedigree data. Possibly it could be found that some indices behave as if inherited, others as if learned (as, for example, almost always present if present in mother but seldom present if present in father), while still other indices would lack predictability. Among indices which could be tested are various facets of mental status, developmental history, psychological test items, and physiologic measurements. Discovery of even one index which behaves like a gene would be a step toward an etiologic classification of mental illness from the present descriptive classification. As an index of susceptibility, it would be a help to researchers attempting to determine what environmental factors promote or hinder development of overt schizophrenia(s).

Willard S. Schwartz, Jr., M.D.,
Resident, Western Psychiatric
Institute and Clinic,
Pittsburgh, Pa.

REPLY TO THE FOREGOING

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY:

SIR: Thank you for the opportunity to comment on the letter from Doctor Schwartz

concerning my recently published analysis of genetic factors in schizophrenia.

It is true that certain disorders (such as gout) may be irregularly manifested among

a larger group of individuals having a metabolic anomaly attributable to single gene inheritance. It is not quite correct, however, to state that all genetic studies on schizophrenia have hitherto dealt only with overt schizophrenia and ignored the possible transmission of more widespread latent "schizoid" tendencies.

Kallmann has postulated that the potentiality for overt schizophrenia is inherited as a simple autosomal recessive unit characteristic with incomplete penetrance and expressivity (determined by a genetically non-specific constitutional defense mechanism). He also speculates that both homozygotes failing to manifest overt schizophrenia and individuals heterozygous for the pathological gene (who must number 20 to 25% of the general population to conform with this theory) may have either a schizoid or normal type of personality, and that the principal genetic derivation of involutional psychosis is from the schizoid personality.

There are many reasons why the majority of human geneticists are not prepared to accept simple formulations of this nature concerning the possible contributions of heredity to the etiology of most common psychiatric syndromes such as the schizophrenias. Clinical psychiatric diagnoses, for example, are not sufficiently precise—both

American and British studies indicating about 30% disagreement between major diagnostic categories used to describe the same patients in different but nearby hospitals.

The complex data that have accumulated appear to preclude any single gene hypothesis of causation for either (a) all varieties of overt schizophrenia or (b) any larger category (schizoid or other), a certain proportion of which included all varieties of overt schizophrenia. Three alternative hypotheses (that are *not* mutually exclusive) were considered briefly in my article: 1. Predominantly environmental causation, 2. Genetic heterogeneity, 3. Polygenic inheritance.

The improbability of a single gene basis for the whole of "schizophrenia" (or of "schizoid personality") does not exclude the possibility that genetic factors may be important or even essential determinants of at least some varieties of schizophrenia. The current lack of certain knowledge should stimulate the search for more objective diagnostic criteria, and their application in extensive family investigations.

Ian Gregory, M.D.,
Department of Psychiatry,
University of Minnesota.

URINARY EXCRETIONS

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY:

SIR: I read with great interest the paper of F. Christine Brown, Ph.D., J. B. White, Jr., B.S., and J. K. Kennedy, M.D. about the "Urinary Excretion of Tryptophan Metabolites by Schizophrenic Individuals."

In 1927 and 1928, E. Scheiner, M.D. published two papers, entitled "Reazione nera (Buscaino), reazione dell' uroscina, reazione di Millon nell' urina di ammenti e dementi precoci" and "La Reazione di Millon nell' urina delle psicosi tossiche," in which he stated that the urine of schizophrenics has an increased content of aro-

matic amines. My superior at that time, Prof. Wagner-Jauregg asked me to check Dr. Scheiner's findings and I obtained the same results as Dr. Brown, J. B. White, and Kennedy with the methods available at that time, namely that there is no increased urinary excretion of aromatic amines in schizophrenia. My findings were published in the *Jahrb. f. Psych. & Neur.*, Vol. 47, P.1, in an article entitled "Ueber die von Scheiner angegebenen vier Harnuntersuchungsmethoden."

Edith Klemperer, M.D.,
New York, N. Y.

DYNAMIC ORIENTATION

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY :

SIR : Dr. Mark Stewart's letter about posts requiring a "Dynamic Orientation" from applicants says something that long needed saying. But this is not the only unfair practice that our Association tolerates. For many years appointments to academic posts in psychiatry, psychology, and social work have been made, openly or tacitly, only to those who have completed a personal analysis. Karl Jaspers¹ drew attention to this violation of academic freedom. Needless to say, someone who dissented from the main doctrines of psychoanalysis would not be regarded as successfully analysed.

Furthermore, scepticism about the value

of psychotherapy is regarded by some as disloyal, and its expression has been seriously proposed as punishable by our Association. This is not the attitude of mature men, sure of the basis of their convictions. Criticism of physical methods of treatment by contrast is acceptable and even praiseworthy.

What a stroke of salesmanship was the appropriation of this word dynamic! Freud's deterministic system, with the timeless unconscious and the repetition compulsion, should much more appropriately be called psychostatics. Dynamic seems a more suitable adjective for psychiatrists who emphasise the individual's creative possibilities, and his power to synthesise new ways of living, unpredictable from his past.

Elliott Emanuel, D.P.M.,

Dorval, Que., Canada

¹ *Nervenarzt*, 1950, 21 : 465. Quoted in *Lancet*, 1951, i, 459.

CARRYING ON

Man continues to live because he is a living creature, not because reason convinces him of the certainty or probability of future satisfactions and achievements. He is instinct with activities that carry him on. Individuals here and there cave in, and most individuals sag, withdraw and seek refuge at this and that point. But man as man still has the dumb pluck of the animal. He has endurance, hope, curiosity, eagerness, love of action. These traits belong to him by structure, not by taking thought.

—JOHN DEWEY

INTELLIGENCE

It is customary among a certain school of sociologists to minimise the importance of intelligence, and to attribute all great events to large impersonal causes. I believe this to be an entire delusion. I believe that if a hundred of the men of the seventeenth century had been killed in infancy, the modern world would not exist. And of these hundred, Galileo is the chief.

—BERTRAND RUSSELL

NEWS AND NOTES

PAPERS OF PROFESSOR C. K. CLARKE.—Through the generosity of his daughter, Miss Emma de V. Clarke, Dr. Clarke's papers have been presented to the Department of Psychiatry of the University of Toronto, where this valuable historical material will be available for study.

In accepting Miss Clarke's gift on behalf of the Department, Professor Aldwyn Stokes spoke in appreciation of Dr. Clarke's great contribution which is becoming increasingly recognized.

Dr. Clarke was the first professor of psychiatry in the University of Toronto (1906-1924). He had also served as Dean of the Medical Faculty, and during World War I had been head of the Department of Psychology and superintendent of the Toronto General Hospital. He was the first director of the Canadian National Committee for Mental Hygiene and held that position until his death in 1924. He had been superintendent of Ontario Mental Hospitals both at Kingston and Toronto. He established the first outpatient psychiatric clinic for children in Canada. He was the first Canadian to serve on the editorial board of the *American Journal of Psychiatry*.

Considering his pioneering work and his constructive leadership throughout his long professional life, C. K. Clarke may be ranked as the preeminent representative of the mental health field that Canada has produced to date.

THE NEW JERSEY NEURO-PSYCHIATRIC INSTITUTE.—The 8th annual Psychiatric Institute will be held at Princeton, N. J., Sept. 14, 1960, beginning at 9 a.m. The theme will be Psychiatry in Foreign Lands. President of the APA, Robert H. Felix will preside.

The assignments are: France, Holland, Belgium—Dr. Barton; Russia—Dr. Lebensohn; Pakistan, Thailand, Indonesia—Dr. Morse; Japan—Dr. Balser.

At the dinner meeting at 7 p.m. at the Princeton Inn, the third annual Nolan D. C. Lewis Award will be presented.

AMERICAN ACADEMY OF PSYCHOTHERAPISTS.—The fifth annual conference of the Academy will be held in Cleveland, Ohio, on October 15 and 16, 1960, at the Hotel Carter. The title for this meeting will be "Psychotherapy—Healing or Growth." The format will be based on a phenomenological approach rather than according to schools of psychotherapy. There will be at least four panelists. The discussion is to be impromptu and no paper is to be read. It will be chaired by Dr. O. Spurgeon English. The attendance will meet in small discussion groups and formulate questions for the panel. For further information write to Dr. Bill J. Barkley, Chairman, 1856 Coventry Road, Cleveland Heights 18, Ohio.

O. T. NEWSLETTER.—This publication is available free of charge from the Editor, Alan H. McLean, M.D., I. B. M. Corp., 590 Madison Ave., N. Y. 22, N. Y. and not from the Mental Health Materials Center as stated in the July issue. The publication *Troubled People on the Job* is available at .50c from the Center, 104 E. 25, N. Y. 10, N. Y.

DOCTORATE IN NURSING SCIENCE.—Dean Marie Farrell of the Boston University School of Nursing announces that a Doctor of Nursing Science degree, the first doctorate in the country which specifically identified nursing in the degree title, has been established at the Boston University School of Nursing.

The first doctoral offering is in psychiatric nursing, with programs in other clinical areas to be instituted in the next two to four years.

Previously, the highest level of training offered at the School was the Certificate of Advanced Professional Specialization, consisting of a minimum of 30 semester hours of advanced study beyond the master's degree. The new degree program calls for a minimum of 60 semester hours' credit in advanced, directed study, plus a doctoral dissertation.

Overall, the objective of the advanced psychiatric nursing program will be to develop further the nurse's role, to include well-defined psychotherapeutic responsibilities which she undertakes in collaboration with the psychiatrist. Extension of this nurse-therapist's role into research, teaching, administration and consultation will be further utilization of the knowledge gained in her doctoral study.

Generous financial support for the establishment of this program has been granted to the University by the National Institute of Mental Health.

KAREN HORNEY ANNIVERSARY.—To commemorate the 75th anniversary of the birth of Karen Horney, the Association for the Advancement of Psychoanalysis is sponsoring a symposium on "Alienation and the Search for Identity," November 5 and 6, 1960 in the Carnegie Endowment International Center in New York City. The main sub-topics will be: "Alienation and the Self," "Alienation and Culture," and "Alienation and Therapy." Some 20 speakers will participate.

RESEARCH FOUNDATION OF THE NATIONAL ASSOCIATION FOR MENTAL HEALTH.—This new unit of the National Association will allocate grants for projects and programs concerned with the causes, prevention and treatment of mental illnesses. It will also provide fellowships for medical students interested in research on mental illness.

The foundation will assume the functions of the research department of the National Association for Mental Health, which has been functioning since early 1959, and which has to date allocated \$208,500 in research grants.

President of the research foundation is Dr. Harold Elley of Wilmington (Del.), formerly chief of research of I. E. duPont de Nemours Company. Its director is Dr. William Malamud, who also serves as director of Professional Services of the National Association for Mental Health. Dr. Malamud is also director of the Schizophrenia Research Committee of the Supreme Council 33° A. A. Scottish Rite, Northern Masonic Jurisdiction. The Scottish

Rite grants are disbursed through the National Association for Mental Health.

THE AMERICAN PSYCHOSOMATIC SOCIETY.—The Society will hold its 18th annual meeting at Chalfonte-Haddon Hall in Atlantic City, April 28, 29, and 30, 1961.

The Program Committee would like to receive titles and abstracts of papers (9 copies) for consideration. Time allotted: 20 minutes. The deadline for abstracts (not more than 2 typewritten pages) is December 1, 1960.

Abstracts should be addressed to the Chairman, Morton F. Reiser, M.D., at 265 Nassau Road, Roosevelt, New York.

ANNALS OF THE NEW YORK ACADEMY OF SCIENCES.—This publication, dated April 22, 1960, is given over to the topic "The Organization of Psychiatric Care and Psychiatric Research in the Union of Soviet Socialist Republics" by Dr. Nathan S. Kline of Columbia University and Rockland State Hospital.

Dr. Kline treats the subject under the headings of Organization of Psychiatric Care, Organization of Psychiatric Research, and Generalizations from Psychiatry to Society, followed by five appendices: Psychiatry in Czechoslovakia, Research Activities in Soviet Institutes, Neuropsychiatric Facilities in the U.S.S.R., Research Plan of the Academy of Medical Sciences and Resolution on Academician I. P. Pavlov.

INTERNATIONAL SYMPOSIUM, EXTRAPYRAMIDAL SYSTEM AND NEUROLEPTICS.—This symposium, organized by the Department of Psychiatry, University of Montreal, will be held at the University, November 17, 18 and 19, 1960. The symposium will be introduced by J. Delay and P. Deniker (Paris), and eminent speakers from Germany, France, England, Switzerland, Belgium, the United States and Canada will participate.

The main subjects for discussion are: 1. Anatomy and Physiopathology, 2. Pharmacology, 3. Parkinson's Disease, 4. Extrapyramidal Syndromes and Clinical Psychiatry, and 5. Special Topics.

For information write to Jean-Marc Bordeleau, M.D., Secretary of the Symposium, Department of Psychiatry, University of Montreal.

DR. ROBERT ROESSLER TO HEAD WISCONSIN PSYCHIATRIC INSTITUTE.—The appointment of Professor Robert Roessler, Chairman of the Department of Psychiatry, as Director of the Wisconsin Psychiatric Institute was recently announced by the Regents of the University of Wisconsin. The dual appointment serves as a means of combin-

ing in effective teamwork Wisconsin's clinical, educational and research resources in the field of Mental Health.

Dr. Roessler has been Asst. Prof. of Neuropsychiatry since 1950. He received the B.S. in Philosophy from the University in 1942 and a M.D. from Columbia in 1945. He became Acting Chairman of the Department of Psychiatry in 1956 and permanent Chairman in 1957. Under his leadership, an integrated residency program with the Department of Public Welfare has been developed.

EFFECT OF EDUCATION

Great minds are pre-eminently good or bad, and education makes them better or worse.

—OSLER

GOVERNMENT

Popular government or democracy is going to fail if left solely to the official class. There must be a volunteer class of strong, capable men offering their services and interesting themselves actively in the affairs of the government.

—WILLIAM H. WELCH

BOOK REVIEWS

HUMAN POTENTIALITIES. By Gardner Murphy. (New York: Basic Books, 1958, pp. 340. \$6.00.)

This book poses the central problems of our time, and promises answers. It asks the question "Where is mankind headed?" with the clear implication that the reader will be handed a time table, a map, and a set of directions. "One of America's foremost psychologists," the jacket proclaims, "dramatically shows us how we can, by our own free choices, control not only our destinies, but those of countless generations to come."

Unfortunately, the promised potentialities remain unfulfilled. It is doubtful whether we, or the "countless generations to come," can derive more from this volume than an interesting statement of Gardner Murphy's views on the nature of human evolution. It is his central premise that human nature has changed and is changing. Should we become aware of the nature of ongoing changes, and of our role in determining them, we may control them for the better. Presumably the book is intended to aid in this process. And since it is mainly the scientist who would provide the awareness and determine the improvements, it is to him that the book is implicitly addressed.

Man, at present, is a cumulative composite of 3 "human natures." The first is close to that of our simian ancestors. It derives satisfaction from all manner of activity, experience, and learning. But soon certain experiences and activities come to be reinforced, and the process of "canalization" sets in, which creates the "second human nature." Here man becomes progressively molded along lines determined by particular cultures, and these molds harden. Despite the pressures with which cultures stifle inventiveness and seek to perpetuate their preferred systems of habits and percepts, a quest for understanding, an insatiable curiosity arise. This is the "third human nature."

In the process of exploring and changing the world, man himself becomes changed. There is no boundary between man and his environment (an adaptation of Lewin's "life space"), the two are inextricably linked and evolve together. We can therefore shape ourselves by shaping the world, and *vice versa*. This is the argument. Nothing less, and very little more. This disappointingly simple and relatively superficial argument is stated in language which frequently glows, and some-

times sparkles. Describing mankind's present dilemma, for instance, Murphy remarks that "there appears to be no escape for any of us but to hide in the hills in the hope that radioactive fallout will somehow not drift into our caves." In his chapter on "rigidity" he tells us that "there is such a thing as being battered down, either dramatically or just quietly and steadily year by year, until one no longer looks up." In a chapter on creative phases of history, we read: "We must demand always that proof be given that the impossible is truly impossible." Children should be encouraged to develop their creative potential; one must study "the ways in which the fires of infancy can be gently transferred to the new furnaces of high creativity." He describes this process elsewhere as "first support, a hand to hold; then a few steps alone; then a race against time to see how much a short life can yield."

One cannot but experience delight at the exquisitely modulated phrases, the unexpectedly appropriate words scattered throughout the book. Our First Human Nature wallows in this verbal confectionery. Our Third Human Nature, however, cannot but wonder whether some of these refinements might not have their origin, like the erotic extravagances of certain Oriental potentates, in the need to deviate from an excessively repeated pattern.

Indeed, as we read through the book, we are assailed time and again with a feeling of *déjà vu* which turns out to have a sound basis in external reality. Murphy experiences the same thoughts over and over, and repeats them mostly with minor variations. It is an uncanny experience to read page after page of iterations and reiterations, only to meet the now familiar ideas again, in a slightly different context, a few chapters later. The exposition of the 3 human natures, for example, consists of pages of synonymous descriptions. Ideas such as that by changing civilization we change human nature; that man is one with his culture and with the "cosmos"; that we cannot extrapolate into the future because of emergents, and that we need more research (e.g., about eugenics), appear again and again. There are many cross-references, some of which seem to hold out the prospect of analyses that are never carried out, or pronounce as answered, questions that have hardly been posed.

One frequently gains the impression that

the author regards a problem as solved merely because he has mentioned it, or assumes that a set of assertions constitutes an argument. He describes "cultural lag" for instance, and tells us that he has provided us with a clue for its explanation. He dismisses a major portion of contemporary social science—the concern with the development of organization man, suburbia, etc.—with a passing reference to impulses like the need to make discoveries. He resolves the issue of free will in 4 or 5 pages. He disposes of rationalism by calling it "dogmatic." In many places, *Human Potentialities* contains assertions for which no factual or logical support is offered.

Occasionally empirical statements are made which are possibly subject to question. We are told that "mutations are constantly going on (probably one mutation for about 5 new births)." At another point we are told that young people could not be creative in times of depression or during post-war periods because "there was no great idea on whose wing they could fly." What of the bulk of American and European literature which flourished in precisely such times? Possibly we have misunderstood Murphy's point, since some of the most impressive passages in the book are discussions of literature, music, and art—especially art. The author shows a familiarity with and a love for art which would do a professional critic or art historian justice.

It is not a function of a reviewer to take issue with a writer's position on substantive matters, but it may be legitimate to make such a position explicit. We note that Murphy introduces a mystical element into his book. He talks about man having "affinities," "resonance" or "isomorphism" with the universe, of mans structural relatedness to the cosmos. He endorses parapsychology, which he regards as supported by overwhelming evidence. He also takes a position in favor of eugenics. On the other hand, he has little to say about social improvements, about problems of inequality, poverty, oppression or prejudice. He does not talk about economic or social relationships. He makes no reference to the role of low status or economic deprivation in stunting human potentialities. Murphy's feeling seems to be that our hope rests in the scientist, and not in the revolutionary. He sees understanding rather than social reform, as the key to the future. Some of us may quarrel with this emphasis, but it is certainly legitimate. By the same token, however, we need not accept Murphy's implied contention that a disagreement with his position on, say, parapsychology, denotes narrowmindedness, in-

tolerance, fear, or obstruction of progress. Merely because an idea falls outside the mainstream of science does not make it progressive. It may be, of course, but on the basis of past experience the probabilities are against it.

This reviewer found chapters on "rigidity" and "creativity in our era" thought-provoking and impressive. He was less happy with a section on "biological changes in man" in which the author discusses eugenics (favorably), or a chapter in which he examines moral implications in science. For "least liked" chapter, this reviewer would nominate one which contains speculations about alternatives open to the world among possible "orders" of society. The selection of the alternatives presented seemed to be somewhat arbitrary.

It is unfortunately not possible, in due conscience, to end this review by recommending *Human Potentialities* as bedside reading, as a professional reference book, or as a volume with therapeutic properties. It is a highly original and relatively systematic set of ideas about human nature and its evolution. Those who are interested in this sort of thing should find it rewarding.

HANS H. TOCH, PH.D.,
Dept. of Psychology,
Michigan State University.

THE LIFE AND TIMES OF SIR CHARLES HASTINGS. By William H. McMenemy. (Edinburgh: E. & S. Livingstone; Baltimore: Williams & Wilkins, 1959, pp. 516. \$10.00.)

Study of the history of medical organizations often reveals the fact that they owe their existence and development to the enthusiasm of one man. The British Medical Association is no exception to this rule, for it owes its existence to an English physician of great ability and charm, who saw the need for medical unity and had the foresight and energy to put his vision to practical use.

Sir Charles Hastings was born in 1794, apprenticed to two apothecaries and appointed house surgeon to the hospital of Worcester, England, while still a teenager. As soon as circumstances permitted, he resigned his post to study in Edinburgh from which he emerged with an M.D. in 1818. He was determined to be the foremost physician in Worcestershire, and lived to see his ambition fulfilled. He was an acknowledged authority on diseases of the chest at the age of 26, and somewhat later, because of his desire to spread medical information, turned his thoughts to journalism. In 1828 he started a journal known as the *Midland Medical and Surgical Reporter*. Un-

fortunately, after a period of success, the journal folded up as a result of the business failure of its publisher, Mr. Tymbs.

Nothing daunted, Hastings promptly formed an association known as the Provincial Medical and Surgical Association, mainly to sponsor the medical journal he edited. Thanks to his careful planning, the association thrived from the start and Hastings became one of the first two secretaries, serving in this capacity for many years, and subsequently being appointed the permanent president or chairman of the council of this association. It is interesting to note that at the second meeting in 1833 when 316 members had already gathered together, the whole progress of medicine and surgery for the year was reviewed by Dr. Barlow in one hour. Incidentally, the first American visitor to an annual meeting was Dr. Sweetser of Boston who was warmly welcomed in 1835.

The present biography of Hastings and his times is aptly named, for McMenemy is concerned not so much with a personal biography as with a story of the interplay of Sir Charles Hastings' ideas and activities, and the problems of the day such as medical reform with the demands of licensing of practitioners and unification of qualifications in England, and the constant running battle between medical practitioners and the Poor Law authorities over the medical care of paupers. The Provincial Association which Hastings founded grew in strength under his wise guidance, while other rival societies founded in London withered away under internal conflict. Hastings constantly kept before him the need to keep together the physicians, surgeons and general practitioners, and gradually wore down the criticisms of Thomas Wakley, the fiery editor of the *Lancet*, who began by castigating the Provincial Association and ended by admiring it.

Yet even Hastings had his blind spots, for when the day came when London wished to join in and the time was ripe for renaming the society the British Medical Association, Hastings first opposed this move. However, when he eventually saw the need for a new name, he was the first to propose it, and the British Medical Association was born in Birmingham in 1855.

There is very little in this book about the private life of Hastings, that is, assuming that his many activities in medical politics and his practice (which included the proprietorship of a lunatic asylum) left him any time for a private life. But his public activities are documented to the last degree, and this book is obviously designed to be the definitive biog-

raphy for many years to come. It is an essential for medical historians, and a near-essential for any student of medical politics. The story carries lessons for organized medicine even today.

STANLEY S. B. GILDER,
Editor, The Canadian
Medical Association Journal.

MENTAL SUBNORMALITY, BIOLOGICAL, PSYCHOLOGICAL, AND CULTURAL FACTORS. By Richard L. Masland, Seymour B. Sarason, and Thomas Gladwin. (New York: Basic Books, 1959, pp. 442. \$6.75.)

This book's Introduction states: "The early planning and development of this program was actively sponsored by the ad hoc committee on mental retardation of the National Institute of Neurological Diseases and Blindness and the National Institute of Mental Health as part of their program development activities in this field. The National Association for Retarded Children received additional financial support from the Association for the Aid of Crippled Children, the New York Foundation, the National Institute of Neurological Diseases and Blindness, and the National Institute of Mental Health."

This book is the result of very comprehensive surveys of presently known causative factors in mental subnormality, a term embracing both mental deficiency (organic) and mental retardation (non-organic), so defined by the World Health Organization.

While the book is by no means a primer in the subject of mental deficiency and requires a good deal of prior knowledge to adequately comprehend, it is of great value to those working in the field. Indeed, careful reading might attract to the field those workers of varying professional background who are seeking out projects.

Two separate works comprise the publication, part one being a summary of the biological factors by Richard L. Masland, M.D., a neuropsychiatrist, and part two a discussion of the psychological and cultural factors by Seymour B. Sarason, Ph.D., a psychologist, and Thomas Gladwin, Ph.D., an anthropologist. The distinctly different approaches of the authors, reviewing the works of thousands of individuals in practically all disciplines, emphasize the complicated multiple etiologies in mental deficiency and mental retardation.

Masland presents the prenatal and post-natal organic causes very effectively, indicating what the near-future advances in genetics may be and the public health ap-

proaches to the study and control of environmental agents. He believes some prenatal factor is paramount in the majority of cases and although the biochemical approach is encouraging, the problems in this field should be studied by multidisciplinary groups associated with universities. Masland expresses the psychiatric point of view in that biological, psychological and cultural factors all operate in the entire range of intelligence, and disputes the concept that "organic" brain damage applies only to the severely defective group. Minor mental impairments extend into the normal population and the biological research that Masland has indicated has implications for universal mental health which must be integrated with those derived from work in the psychological and sociocultural fields.

The second section considers in detail the validity, based on theoretical and cultural comparisons, of the concept of mental defect. It reviews in great detail those studies which indicate that the majority of those who are regarded as defective during their educational years prove to be adequate adults, and questions the value of traditional education for that group.

Two chapters deal with the severely defective, pointing out the resemblance of their behavior to psychoses and the need to explain that behavior rationally, instead of dismissing it as due to organic defect. The authors make a strong plea for objective study of, and assistance to, this group, based on approaches devoid of defeatist assumption.

Unfortunately, the style of the second section is of extremely polemic character. There is a "harping" quality about the questions raised concerning education, IQ tests, and cultural influences in mental retardation. The authors, after reviewing considerable research in the matter, conclude that present psychometric tests fail to adequately predict adult problem-saving behavior, do not tap a sufficient variety of intellectual processes, are unreliable, and are strongly weighted in the direction of maintaining middle and upper class social values. Although these points are all relatively true, they do not rule out the use of tests in conjunction with all the other criteria regularly used in diagnosing mental retardation. Such tests came into use long after the concept of mental deficiency. To pick on IQ as though it were to blame for creating a pseudo-problem is quite misleading.

A series of recommendations for theoretical review, research and research centers, as well as personnel recruitment and training, conclude the second section. This book should serve

as a valuable text in medical schools, departments of sociology and psychology, and in schools of education.

E. J. ENGBERG, M.D.,
Faribault State School and Hosp.,
Faribault, Minn.

ESKIMO. By Edmund Carpenter, Frederick Varley, and Robert Flaherty. (Toronto: University of Toronto Press, 1959. \$4.95.)

The text of this large quarto volume is provided by Professor Edmund Carpenter, of the Department of Anthropology at the University of Toronto, the reproductions of sketches and paintings, by the Canadian artist Frederick Varley, and the carvings, which illustrate many pages of the book by the late Robert Flaherty. The importance of this volume for students of the human mind lies in some rather astonishing facts which Professor Carpenter brings out. These relate to the extraordinary mechanical abilities of the Eskimo. Machines that cannot be repaired by experts are child's play to an Eskimo who may never have seen such a machine before! Airplane engines that defy the trained mechanics are a lark to the Eskimo. Asked to draw a map of their island, a land mass of some 20,000 square miles, two Eskimos who had never previously drawn a line in their lives produced maps so accurate that they differ only in the slightest details from those produced by the aerial cartographers.

Has this remarkable faculty something to do with their constant training and necessity to orient themselves in relation to signs which appear non-existent to the non-Eskimo observer? Is there a genetic factor involved here, or is it a matter of cultural conditioning, or both? Evidently, both. But to what extent is this ability culturally conditioned and to what extent genetically? Here is a nice problem for investigation.

This is a charming and attractive account of Eskimos, anecdotal rather than systematic, and very reasonably priced.

ASHLEY MONTAGU, Ph.D.,
Princeton, N. J.

INDIVIDUUM UND KRANKHEIT. GRUNDZUEGE EINER INDIVIDUAL PATHOLOGIE. (Individual and Disease. Fundamentals of an Individual Pathology). By Friedrich Curtius. (Berlin: Springer Verlag, 1959.)

In his introduction, the author explains that anthropological medicine with its concern about the metaphysical meaning of the individual case and with the establishment of a phenomenological, essentially intuitive apprais-

al of the personality cannot, despite all its importance, answer questions about the biological constellation of the individual patient. He undertakes to show that "an objective, structural analysis of the individual combination of conditions" can elucidate the individual case. Professor Curtius discusses types and concludes that the types are often too broadly conceived. As they, in the reviewer's opinion, never are "realized," but represent only "ideal" frames, it is little wonder always to be faced with deviations of the individual from "his" type. It can be assumed, though, that in the "typical," as a rule, constitutional factors come to manifestation.

Constitutional factors play a role in pathogenesis, in the premorbid condition, in the individual way of response and in organ dispositions. Not all these factors are exclusively constitutional in every single case: it belongs to the hard task of diagnosing to find out as much as possible about all the factors under consideration. The factors mentioned plus environmental factors cannot but lead to the assumption of the pluricausality in the genesis of every case.

There is, however, not only the pluricausality pathogenesis, in which the individuality of the patient is expressed; it also makes itself noticed in the "shaping," in the formation of his sickness (*Krankheitsgestaltung*). Here Karl Birnbaum's notion of the pathoplastic is used with emphasis.

The author demands that in any adjudgment of disease, justice be done to the "nosological reality instead of dogmatic fiction." The particular consideration of the individual ought to modify the "school" diagnosis through the individual diagnosis. Such considerations are as necessary as they are useful in expert opinions (*Begutachtung*) and in respect to prognosis.

Discussing therapy and the combination of diseases, the author devotes several pages to complications during pregnancy.

The text is constantly enlivened and enriched through case histories. There are 58 illustrations, some of them in color.

This is an unusually solid and important book. The author is the chief of a large medical department in a communal hospital in Luebeck (Germany). He has built up this book on his own clinical experience which he has constantly and critically widened and broadened. He tries to be fair to certain psychological influences, some of which seem to blossom in German medicine nowadays, but his own attitude is clearcut scientific. Not without a certain humor does he make the statement that the notion of unicity only re-

cently dropped in pathology, reenters the scene in psychosomatics. The author knows as well as any of the modern "Psychiker" (word and quotation marks are the responsibility of the reviewer) that people with a labile autonomous nervous system respond accordingly to conflicts. He regrets the exaggeration of constitutional and hereditary factors as much as the one-sided emphasis on environmental influences.

We are given here the fruit of indefatigable clinical work and—as if it were in an aside—are reminded that "facts" weigh more heavily than "theories."

Despite his clearly formulated attitude the author is open to all possibilities that may grow out of the present crisis of medicine.

This book may well become a classic.

EUGEN KAHN, M.D.,
Houston, Tex.

SIGNIFICANT TRENDS IN MEDICAL RESEARCH.

The Ciba Foundation 10th Anniversary Symposium. Edited by G. E. W. Wolstenholme, M.B., Cecelia O'Connor, B.Sc., and Maeve O'Connor, B.A. (Boston: Little, Brown & Co., 1959, pp. 356, ill. \$9.50.)

This volume exemplifies the great service of the Ciba Foundation and its parent Ciba Limited of Basle to medical education and research. Thirteen international authorities representing the range of contemporary research were invited to present those features of work in their fields which they considered most significant for future trends. Seven of these scientists are Nobel Laureates. Ample discussion followed each presentation.

This three-day symposium held in London was undoubtedly one of the most important of the fifty symposia and colloquia originated by the Ciba Foundation and published by J. & A. Churchill, Ltd. Here we can only indicate the scope of the Symposium by listing the titles of papers and their authors in the order of presentation. They were:

1. Molecular Structure in Relation to Biology and Medicine, by L. Pauling of the California Institute of Technology.

2. Fluorimetric Studies on Pyridine-Nucleotide Enzyme Complexes, by H. Theorell, Nobel Medical Institute, Stockholm.

3. Chemical Basis of Virus Multiplication, by G. Schramm, Max-Planck Institute, Tübingen.

4. Population Dynamics of Body Cells, by Sir Macfarlane Burnet, Walter and Eliza Hall Institute, Melbourne.

5. Genetics and Medicine, by J. Waldenström, Malmö Allmänna Hospital, Malmö.

6. Ten Years of General Neurophysiology, by A. von Muralt, University of Berne.

7. The Nature and Mechanism of Action of Hormones, by F. G. Young, University of Cambridge.

8. Metabolic Problems Involving the Pancreas, Choline, Insulin, and Glucogen, by C. H. Best, Banting and Best Dept. of Medical Research, University of Toronto.

9. Research in Chronic Pulmonary Disease, by D. W. Richards, Columbia University, New York.

10. Malignant Transformation: its Mechanisms and Nature, by A. Haddow, University of London.

11. Research in Clinical Nutrition, by J. F. Brock, University of Cape Town.

12. The Quantitative Approach to Disease—Exemplified by Essential Hypertension, by Sir George Pickering, University of Oxford.

13. Factors Influencing the Substance and Dimension of Medical Research in the United States, by J. A. Sannon, National Institutes of Health, Bethesda.

Sir Harold Himsworth presided over the Symposium. In his closing remarks Sir Harold Himsworth observed that when, with the introduction of the experimental method into medicine by William Harvey, it became possible for the basic medical sciences to advance rapidly while the clinical branches lagged behind at the observational level. In recent years however it has been possible to apply experimental techniques to the living patient and clinical medicine is rapidly catching up. We are now entering the stage "where it is possible to consider the whole of medical knowledge again as one intellectual continuum." This present symposium is evidence of that fact.

C.B.F.

ESSAYS IN INDIVIDUAL PSYCHOLOGY. Edited by Kurt Adler and Danica Deutsch. (New York: Grove Press, Inc., 480 pp., 1959. \$2.95.)

In this book Kurt Adler, the son of Alfred Adler, and Danica Deutsch have gathered more than 50 articles written over the years by psychiatrists and psychologists who use predominantly Adlerian concepts and methodologies in handling their psychotherapeutic problems.

The topics discussed in the treatises range over a wide field and are grouped into 4 main sections: philosophical concepts, theoretical principles, therapeutic procedures and case

presentations. One is at once struck by the freshness, directness and clarity of expression as well as the lack of devious thinking, attributes that were so characteristic of Alfred Adler and which apparently have filtered through to his followers. This is indeed admirable when it does not lead to over-simplification or superficiality, pitfalls that have been successfully avoided by all contributors. As a result the overall style makes for lively, interesting and stimulating reading.

It is very important that a book such as this should have appeared at this time for, as Joseph Wilder states in his introductory remarks—"most observations and ideas of Alfred Adler have subtly and quietly permeated modern psychological thinking to such a degree that—the question is not whether but rather how much of an Adlerian one is." If this is so, and the evidence seems to support this assertion, a presentation such as the one before us is most timely.

In a short review it is impossible to do justice to the efforts that have gone into the work of writing the articles and editing this volume. Suffice it to say that we are presented here not with a text book on Adlerian psychology but rather with a bird's eye view and a description of many of his concepts together with their practical employment.

Most interesting, too, are the articles which link Adlerian Individual Psychology with other orientations, such as those of Freud, Jung, Existentialism, various group methodologies, psychodrama, Meier's intermediary distasteful therapy, Genderson's graphic play therapy and others. This very enumeration shows once again how widely Adlerian thinking has penetrated into virtually all of psychotherapy.

Thus I think that we owe Alfred Adler most humbly a vote of profound thanks. Moreover, it is heartening to know that his daughter Alexandra and his son Kurt, in collaboration with Danica Deutsch and many other psychotherapists are keeping his thinking and methodologies alive and growing by having formed and by directing the Alfred Adler Consultation Center and Mental Health Clinic in New York which perform the double function of therapy and research.

To this reviewer it seems that *Essays in Individual Psychology* should be on the desk (not merely on the shelf) of every psychotherapist, irrespective of his or her specific persuasion or emphasis of orientation.

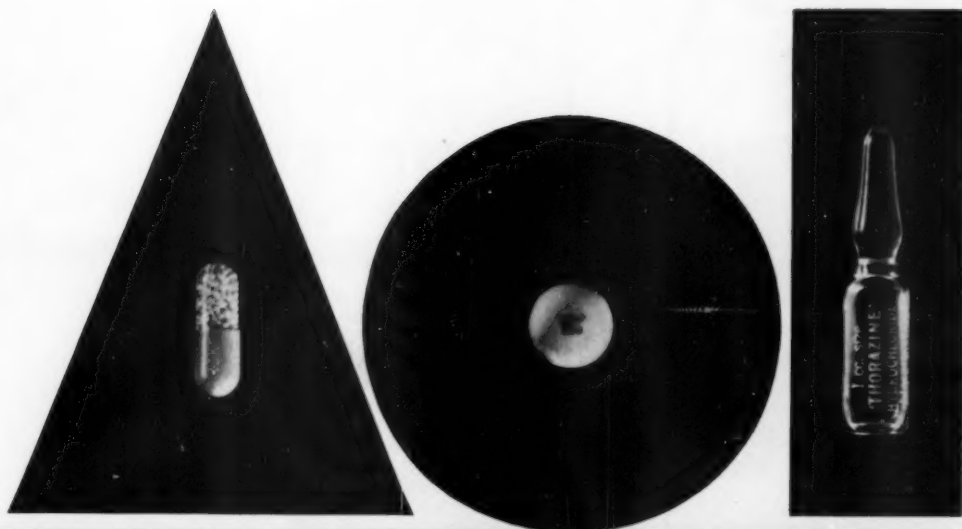
WILLIAM WOLF, M.D.,
New York, N. Y.

'THORAZINE', introduced in 1954, is still the most widely used antipsychotic agent. It is effective, and it is relatively safe. It is extensively documented. It is a standard against which other psychopharmaceutical agents are judged.

'Thorazine' gave impetus to a new era of psychiatric treatment. It is indeed a fundamental drug in psychiatry.

**SMITH
KLINE &
FRENCH**

leaders in
psychopharma-
ceutical research



THORAZINE® is a fundamental drug in psychiatry.

brand of chlorpromazine



an original development of

NEW **LIBRIUM**

Roche research



5 mg and 10 mg

THE SUCCESSOR TO THE TRANQUILIZERS

successor in specificity: relieves anxiety, agitation and tension, and liberates the patient from destructive fears.

successor in safety: not encumbered by depression, lacks autonomic or extrapyramidal side effects.

successor in versatility: covers the entire meprobamate area of therapy plus a significant portion of the phenothiazine area plus the difficult middle ground between the two.

successor in effect: acts with remarkable promptness; preserves mental acuity; produces a feeling of well-being, and a broadening of interest.

Consult literature and dosage information, available on request, before prescribing.

Published reports on Librium: 1. T. H. Harris, *Dis. Nerv. System*, 21:(Suppl.), 3, 1960. 2. L. O. Randall, *ibid.*, p. 7. 3. J. M. Tobin, I. F. Bird and D. E. Boyle, *ibid.*, p. 11. 4. H. A. Bowes, *ibid.*, p. 20. 5. J. Kinross-Wright, I. M. Cohen and J. A. Knight, *ibid.*, p. 23. 6. H. H. Farb, *ibid.*, p. 27. 7. C. Breitner, *ibid.*, p. 31. 8. I. M. Cohen, *Discussant, ibid.*, p. 35. 9. G. A. Constant, *ibid.*, p. 37. 10. L. J. Thomas, *ibid.*, p. 40. 11. R. C. V. Robinson, *ibid.*, p. 43. 12. S. C. Kaim and I. N. Rosenstein, *ibid.*, p. 46. 13. H. E. Tickin and J. D. Schultz, *ibid.*, p. 49. 14. J. N. Sussex, *ibid.*, p. 53. 15. I. N. Rosenstein, *ibid.*, p. 57. 16. D. C. English, *Curr. Therap. Res.*, 2:88, 1960. 17. T. H. Harris, *J.A.M.A.*, 172:1162, 1960. 18. G. L. Usdin, *J. Louisiana M. Soc.*, 112:142, 1960. 19. I. N. Rosenstein and C. W. Silverblatt, paper read at Pan American Medical Association, 35th Anniversary Congress, Mexico City, Mexico, May 2-11, 1960. 20. K. Rickels, *ibid.* 21. N. Toll, *Dis. Nerv. System*, 21:264, 1960.

LIBRIUM® Hydrochloride—7-chloro-2-methylamino-5-phenyl-3H-1,4-benzodiazepine 4-oxide hydrochloride

ROCHE LABORATORIES • Division of Hoffmann-La Roche Inc.

Why Deprol is the first drug to use in depressions

Clinical reports indicate that many depressions can be relieved by Deprol and psychotherapy, without recourse to more hazardous drugs or EST.

Deprol relieves the patient's related anxiety, insomnia and anorexia without danger of overstimulation, thus permitting better rapport to be established sooner, and facilitating more effective treatment.

Deprol acts without undue delay. Its effect can be determined quickly. If unusual cases require additional or alternative therapy, this will be quickly discernible.

Deprol can be controlled — there is no lag period of a week or two over which drug effects continue after medication is stopped. In cases where alternative therapy may be needed, it can be started at once.


Deprol is safe — does not produce liver damage, hypotension, psychotic reactions or changes in sexual function; does not interfere with other drug therapies.

▲ Deprol ▲ benactyzine + meprobamate

Composition: Each tablet contains 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

Supplied: Bottles of 50 light-pink, scored tablets.

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this dose may be gradually increased up to 3 tablets q.i.d.

 **WALLACE LABORATORIES**
Cranbury, N. J.

Bibliography (11 clinical studies, 764 patients):

1. Alexander, L. (35 patients). Chemotherapy of depression—Use of meprobamate combined with benactyzine [2-diethylaminoethyl benzilate] hydrochloride. *J.A.M.A.* 160:1019, March 1, 1958. 2. Bateman, J. C. and Carlton, H. N. (50 patients). Meprobamate and benactyzine hydrochloride (Deprol) as adjunctive therapy for patients with advanced cancer. *Antibiotic Med. & Clin. Therapy* 6:648, Nov. 1959. 3. Bell, J. L., Tauber, H., Santy, A. and Pulito, F. (77 patients). Treatment of depressive states in office practice. *Dis. Nerv. System* 20:263, June 1959. 4. Britner, C. (31 patients). On mental depressions. *Dis. Nerv. System* 20:142, (Section Two), May 1959. 5. Landman, M. E. (50 patients). Choosing the right drug for the patient. Submitted for publication, 1960. 6. McClure, C. W., Papas, P. N., Spore, G. S., Palmer, E., Slattery, J. J., Konafal, S. H., Henken, B. S., Wood, C. A. and Ceresia, G. B. (128 patients). Treatment of depression—New technique and therapy. *Am. Pract. & Digest Treat.* 10:1525, Sept. 1959. 7. Pennington, V. M. (135 patients). Meprobamate-benactyzine (Deprol) in the treatment of chronic brain syndrome, schizophrenia and senility. *J. Am. Geriatrics Soc.* 7:656, Aug. 1959. 8. Rickels, K. and Ewing, J. H. (35 patients). Deprol in depressive conditions. *Dis. Nerv. System* 20:364, (Section One), Aug. 1959. 9. Ruchwarger, A. (187 patients). Use of Deprol (meprobamate combined with benactyzine hydrochloride) in the office treatment of depression. *M. Ann. District of Columbia* 28:430, Aug. 1959. 10. Sattel, E. (52 patients). Treatment of depression in the elderly with a meprobamate-benactyzine hydrochloride combination (Deprol). *Antibiotic Med. & Clin. Therapy* 7:28, Jan. 1960. 11. Spitzer, S. R. (84 patients). The care of the anxious and the depressed. Submitted for publication, 1959.

**WHEN
TENSION
DISRUPTS
TREATMENT
ELIXIR
ALURATE
DISRUPTS
TENSION**

Dependable, prompt-acting
daytime sedative.

Broad margin of safety. Virtually no drowsiness. Over a quarter century of successful clinical use. Alurate is effective by itself and compatible with a wide range of other drugs. To avoid barbiturate identification or abuse, Alurate is available as Elixir Alurate (cherry-red) and Elixir Alurate Verдум (emerald-green).

Adults: $\frac{1}{2}$ to 1 teaspoonful of either Elixir Alurate or Elixir Alurate Verдум, 3 times daily.
ALURATE®—brand of aprobarbital

ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley 10, N. J.



Stelazine[®]

brand of trifluoperazine

to help you reach the chronic psychotic

Because of its clinically demonstrated effectiveness in the treatment of chronic psychotics, 'Stelazine' therapy should be tried for such patients, no matter how discouraging the results of previous therapies may have been.

an awakening effect

Allen¹ reports that 'Stelazine' had an awakening effect on chronic patients "who had previously been lacking ambition, initiative, or interest in their surroundings."

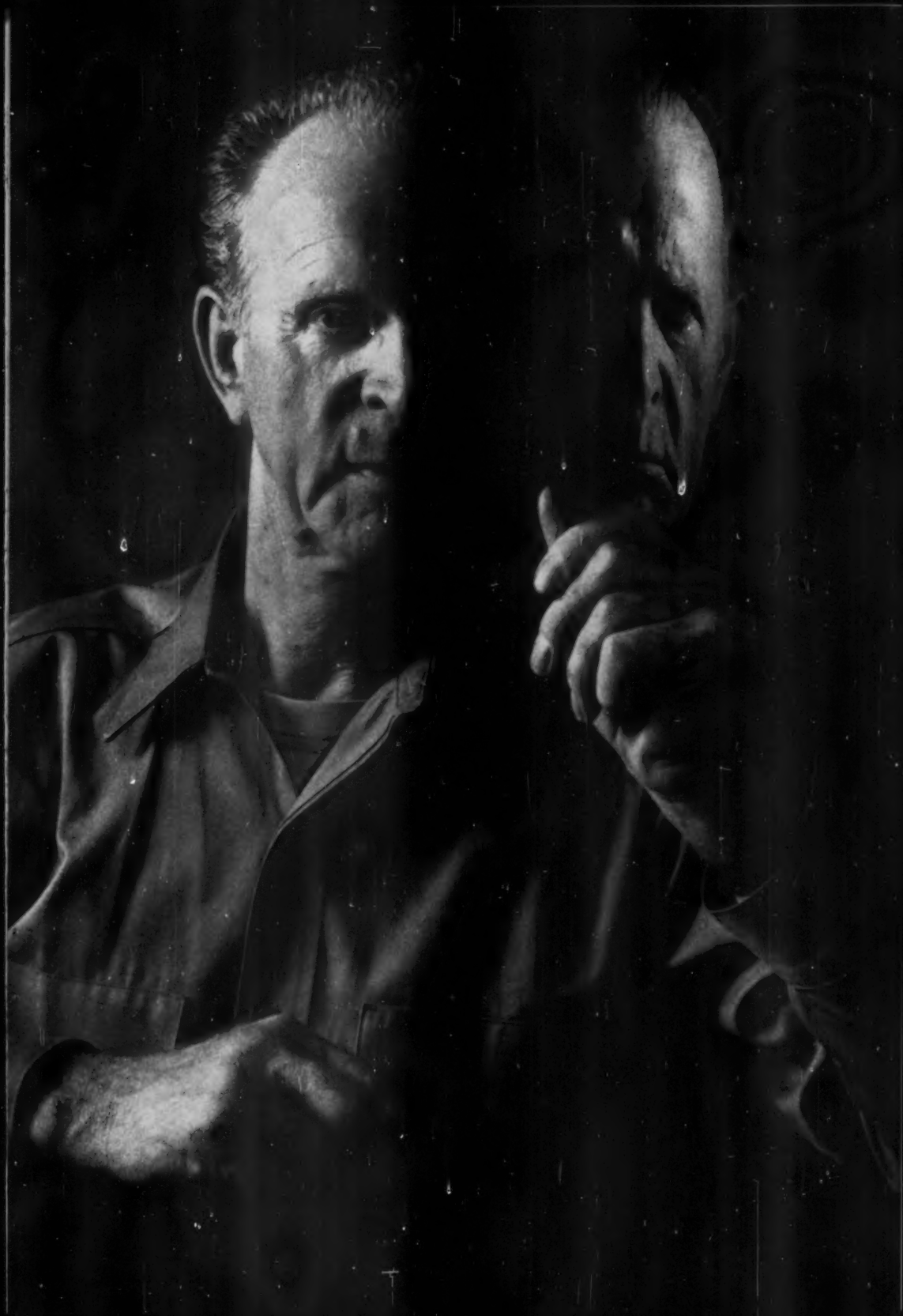
delusional and hallucinatory trends alleviated

'Stelazine' also "alleviated delusional and hallucinatory trends and facilitated communication and psychotherapy. . . . To appreciate the significance of this progress, it must be remembered that these patients had spent years on closed wards, beyond the reach of any available form of therapy."

1. Allen, V. S.: Trifluoperazine in the Treatment of Drug-Resistant Schizophrenics, *J. Clin. & Exper. Psychopath.* 20:247 (Sept.) 1959.



leaders in psychopharmaceutical research





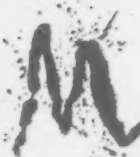
how does Mellaril differ from other potent tranquilizers?



Mellaril[®]

THIORIDAZINE HCl

specific, effective tranquilizer



*provides highly effective tranquilization,
relieves anxiety, tension, nervousness,
but is virtually free of such toxic effects as*

*jaundice
Parkinsonism
blood dyscrasia
dermatitis*

*greater specificity of tranquilizing
action results in fewer side effects*



Virtual freedom of Mellaril from major toxic effects is due to greater specificity of tranquilizing action—divorced from such "diffuse" effects as anti-emetic action.

"Moderate to marked improvement in psychomotor behavior was obtained with Mellaril in 17 of the 22 cases in this series. In addition, there was complete elimination of extrapyramidal activity in 15 of 18 patients who had manifested Parkinsonian symptoms with the drugs previously employed. Our observations indicate that Mellaril is equally effective, or more so, than other phenothiazines in the treatment of various psychiatric disorders, but has a distinctly lessened tendency to induce extrapyramidal stimulation. In our experience, this is a significant contribution to the more effective management of larger numbers of disturbed patients."*

Supply: MELLARIL Tablets, 10 mg., 25 mg., 50 mg., 100 mg.

*Khakee, A., and Hess, G. F.: Mellaril in the Treatment of Chronically Disturbed Patients: With Special Reference to Reduced Extrapyramidal Complications, *Am. J. Psychiat.* **116**:1030 (May) 1960.





DRUG-INDUCED PARKINSONISM IS ON THE RISE, reflecting the growing use of potent tranquilizers. These extrapyramidal disturbances may be reduced by lowering tranquilizer dosage.

***“It is almost always preferable, however, to merely add oral AKINETON®... since this avoids the risk of loss of therapeutic benefit and permits uninterrupted phenothiazine therapy.”**

AKINETON®

BRAND OF BIPERIDEN

a prompt, specific countermeasure to drug-induced akinesia
motor restlessness · akathisia · torticollis · oculogyric crises · chorea

remarkably safe — “Akineton was not responsible for a single dangerous or toxic effect in the 500 patients treated.”*

Dosage: Doses required to achieve the therapeutic goal are variable and individually adjusted. The following are average doses.

Drug-induced extrapyramidal disorders
1 tablet (2 mg.) one to three times daily

Parkinson's disease
1 tablet (2 mg.) three or four times daily

AKINETON hydrochloride tablets—2 mg., bisected, bottles of 100 and 1000.

*Ayd, Frank J., Jr.: Drug-induced Extrapyramidal Reactions: Their Clinical Manifestations and Treatment with Akineton. *Psychosomatics* 1:143 (May-June) 1960.



KNOLL PHARMACEUTICAL COMPANY, ORANGE, NEW JERSEY

XXVIII

SQUIBB ANNOUNCES once a day dosage for the psychiatric patient

new
Prolixin

Squibb Fluphenazine Dihydrochloride

Prolixin is a new, exceptionally effective behavior modifier with sustained and prolonged action for your psychiatric patients. Its extended action, permitting a single daily dose, has been thoroughly demonstrated in clinical trials.^{1,2}

Prolixin is particularly useful in the management of acute and chronic psychotic states characterized by agitation, excitement, explosive behavior and turbulence — in such conditions as schizophrenia, mania, psychoses due to organic brain disease, and senile psychoses.

Providing lowered toxicity and maximum economy, Prolixin not only elicits a greater therapeutic response but also affords improvement in many patients previously refractory to other phenothiazines. This is true whether the mental disorder is of short or long duration.

The usual extrapyramidal symptoms encountered with other potent phenothiazine derivatives have been reported.¹⁻³ Less common effects have been hypotension,⁴ drowsiness,⁵ agitation,⁷ restlessness,⁴ and anorexia.⁶ Side effects have disappeared with reduced dosage or temporary discontinuance of the drug.^{2,5,6}

¹PROLIXIN[®] IS A SQUIBB TRADEMARK

Dosage: Optimum dosage levels vary from patient to patient and must be determined individually. Most patients may be maintained on 1 mg. — 5 mg. daily. **Supply:** 1.0 mg., 2.5 mg., and 5 mg. tablets. **References:** 1. Taylor, I.J.: Clin. Res. Notes 2:1 (Aug.) 1959. 2. Morrow, L.L.: Clin. Res. Notes 2:8 (Aug.) 1959. 3. Darling, H.F.: Dis. Nerv. System 20:167 (April) 1959. 4. Niswander, G.D., and Karacan, I.: Dis. Nerv. System (In Press). 5. Freed, J.E.: Clin. Res. Notes 2:12 (Aug.) 1959. 6. Weiss, I.I.: Clin. Res. Notes 2:12 (Aug.) 1959. 7. Stevenson, L.E.: Clin. Res. Notes 2:10 (Aug.) 1959.

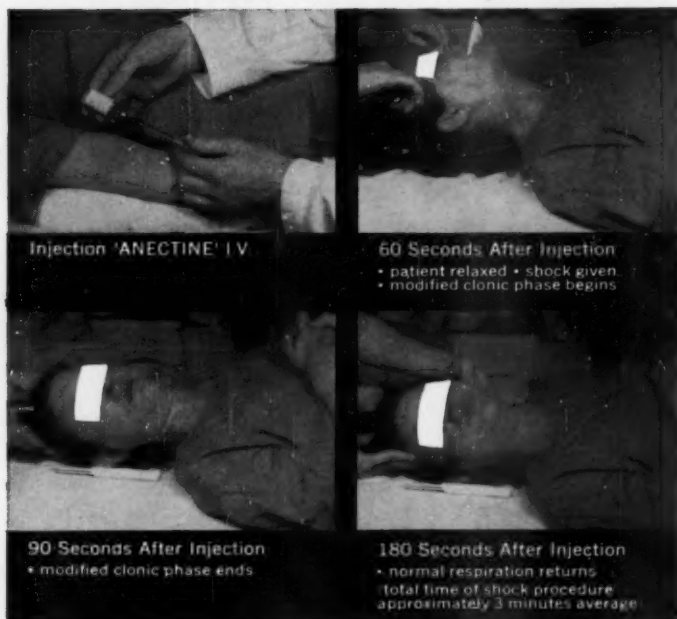


SQUIBB

**Squibb Quality—
the Priceless
Ingredient**

SAFER ELECTROSHOCK THERAPY

ultra-short-acting
skeletal muscle
relaxant **'ANECTINE'**[®]
Succinylcholine Chloride brand



rapid
relaxation
rapid
recovery

Comments from the literature:

"... method of choice."

Havens, L. L.: *Dis. Nerv. System* 19:1 (Jan.) 1958.

"... recommend its use."

Impastato, D. J., and Gabriel, A. R.: *Am. J. Psychiat.* 114:698 (Feb.) 1958.

"... treatment of choice."

Michael, K. D., and Wunderman, D. C.: *J. Nerv. & Ment. Dis.* 126:535 (June) 1958.

"... irrespective of age."

Robie, T. R.: *J. M. Soc. New Jersey* 52:82 (Feb.) 1955.

Complete literature available upon request.

'Anectine'® brand Succinylcholine Chloride

Injection: 20 mg. in each cc., multi-dose vials of 10 cc.



BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

XXX

WHEN PARKINSONISM COMPLICATES PHENOTHIAZINE THERAPY

Tremors, rigidity, cramps, and spasm due to treatment with potent phenothiazines are "easily alleviated with COGENTIN,"¹ even in many cases when other drugs have failed.² COGENTIN is a most powerful antispasmodic,³ yet its long, cumulative action is unusually well tolerated. By controlling parkinsonism and other extrapyramidal symptoms, COGENTIN usually enables the physician to continue the full benefits of phenothiazine management.

Detailed directions for the use of COGENTIN, including dosage and routes of administration, are available to physicians on request.

NEW DOSE FORM: INJECTION COGENTIN, 1 mg. per cc., ampuls of 2 cc. Also available: Tablets COGENTIN (quarterscored), 2 mg., bottles of 100 and 1000.

1. Ayd, F. J.: Clin. Med. 6:387, 1959. 2. May, R. H.: Am. J. Psychiat. 116:360, 1959. 3. Brock, S. (Moderator): Bull. New York Acad. Med. 32:202, 1956.

COGENTIN is a trademark of Merck & Co., Inc.

 **MERCK SHARP & DOHME**
Division of Merck & Co., Inc., West Point, Pa.

COGENTIN

ME THANESULFONATE (BENZTROPINE ME THANESULFONATE)

in your
depressed
patient

remove the depression with new
a true antidepressant **Nardil**TM

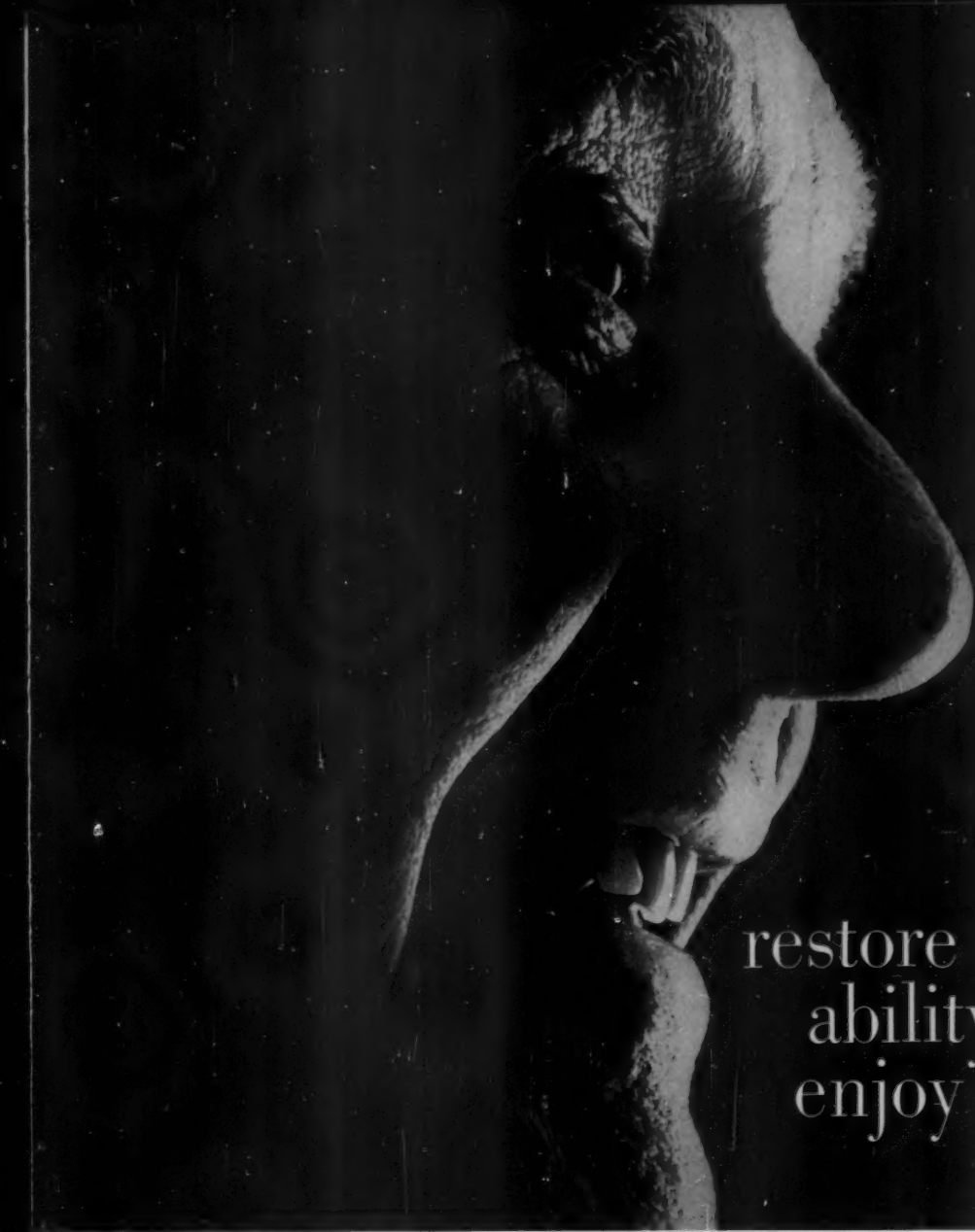
brand of phenelzine dihydrogen sulfate

rapidly effective—antidepressant response often within a few days; complete remission usually within 2 to 6 weeks, in 4 out of 5 patients.¹⁻¹⁰

low toxicity—no significant reports of toxicity to liver, blood or kidneys.¹⁻¹⁰

corrective—helps remove the depression, rather than merely masking the symptoms... restores the mild-to-deeply depressed patient without institutionalization and without recourse to ECT in most cases.¹⁻¹⁰

simple dosage—1 tablet 3 times a day.



restore the
ability to
enjoy life

INDICATIONS: Mild to severe depressions, depressions associated with chronic diseases such as angina pectoris and rheumatoid arthritis. Improves the depressed phase of affective (manic-depressive) psychosis, and relieves the depression of catatonic schizophrenics, although not affecting the psychosis *per se*. **SIDE EFFECTS:** Occasional postural hypotension and infrequent nausea, ankle edema, delayed micturition or constipation are managed by appropriate adjunctive therapy, or dosage reduction. **DOSAGE:** One tablet three times a day. After remission, reduce to a maintenance level of 1 or 2 tablets a day. **SUPPLIED:** Orange-coated tablets, each containing 15 mg. of phenylethylhydrazine pres-

ent as the dihydrogen sulfate. Bottles of 100. **CAUTION:** Nardil should be withheld or used with extreme caution where the patient has a history of liver disease or liver damage is present. Hypotensive patients should be under close medical supervision.

REFERENCES: 1. Sains, A.: *Ann. New York Acad. Sc.* 80:780, Art. 3 (Sept. 17) 1959. 2. Thal, N.: *Dis. Nerv. System* 20:197 (May, Pt. 1) 1959. 3. Saunders, J. C., Kline, N. S., et al.: *Am. J. Psychiat.* 116:71, 1959. 4. Arnow, L. E.: *Clinical Med.* 6:1573, 1959. 5. Dickel, H. A., et al.: *Clinical Med.* 6:1579, 1959. 6. Dunlop, E.: *Rhode Island M. J.* 42:656, 1959. 7. Sains, A.: *Dis. Nerv. System* 20:537, 1959. 8. Sarwer-Foner, G. J., et al.: *Canad. M.A.J.* (in press) 1959. 9. Hobbs, L. E.: *West Virginia M. J.* (in press) 1959. 10. Dunlop, E.: *Dis. Nerv. System* (in press) 1959.



MORRIS PLAINS, N.J.



**LIFT THE
DEPRESSION**

Lift the depression with Marplan. Marplan has been shown to be considerably more potent than certain other amine oxidase regulators. While clinically such increase in potency has heretofore been associated with increased side effects, Marplan strikes a happy balance of potency/safety. Marplan has shown markedly fewer of the side reactions of the hydrazines (such as orthostatic hypotension, constipation, jitteriness, peripheral edema, skin rash). Moreover, throughout the extensive clinical investigations, no liver damage has been reported. Marplan is an amine oxidase regulator, however, and like all of these agents, it is contraindicated in the presence of liver or kidney disease.

Indications range from moderate to severe psychiatric disorders with associated symptoms of depression, withdrawal or regression. Marplan is also valuable as an adjunct in psychotherapy to facilitate the patient's responsiveness. *Complete literature* giving dosage, side effects and precautions is available upon request and should be consulted before prescribing.

Supplied: 10-mg tablets in bottles of 100 and 1000.

Bibliography: 1. H. F. Darling, W. Kruse, C. F. Hess and M. G. Hoermann, *Dis. Nerv. System*, 20:269, 1959. 2. G. C. Griffith, *Clin. Med.*, 6:1555, 1959. 3. R. B. Ford, H. E. Branham and J. J. Cleckley, *ibid.*, p. 1559. 4. H. Azima, H. Durost, D. Arthurs and A. Silver, *Am. J. Psychiat.*, 116:453, 1959. 5. L. Alexander and S. R. Lipsett, *Dis. Nerv. System*, 20:(Suppl.), 26, 1959. 6. H. F. Darling, *Am. J. Psychiat.*, 116:355, 1959. 7. A. L. Scherbel and J. W. Harrison, *Ann. New York Acad. Sc.*, 80:(Art. 3), 620, 1959. 8. L. O. Randall and R. E. Bagdon, *ibid.*, p. 626. 9. G. Zbinden and A. Studer, *ibid.*, p. 873. 10. O. Resnick, *ibid.*, p. 726. 11. T. R. Robie, *Dis. Nerv. System*, 20:182, 1959. 12. A. Feldstein, H. Hoagland and H. Freeman, *Science*, 130:500, 1959. 13. L. O. Randall and R. E. Bagdon, *Dis. Nerv. System*, 19:539, 1958. 14. W. Hollander and R. W. Wilkins, in J. H. Moyer, Ed., *Hypertension*, Philadelphia, W. B. Saunders Co., 1959, p. 399. 15. I. Kimbell and A. Pokorny, paper read at Symposium on Newer Antidepressants and Other Psychotherapeutic Drugs, Galveston, Texas, Nov. 13-14, 1959. 16. D. Goldman, *ibid.* 17. J. E. Oltman and S. Friedman, *ibid.* 18. G. Zbinden, *ibid.* 19. G. C. Griffith and R. W. Oblath, *ibid.* 20. H. Freeman, *ibid.* 21. W. B. Abrams, A. Bernstein, V. D. Mattia, Jr., R. J. Floody and L. O. Randall, Scientific Exhibit, American Medical Association Meeting, Atlantic City, N. J., June 8-12, 1959. 22. R. W. Oblath, paper read at American Therapeutic Society, 60th Annual Meeting, Atlantic City, N. J., June 6, 1959. 23. S. L. Cole, *ibid.* 24. I. Kimbell, Jr., paper read at Cooperative Chemotherapy Studies in Psychiatry, 4th Annual Research Conference, Memphis, Tenn., May 20-22, 1959. 25. L. O. Randall and R. E. Bagdon, Second Marsilid Symposium, Chicago, May 8, 1958. 26. W. B. Abrams, D. W. Lewis and M. C. Becker, paper read at the International Symposium on Catecholamines in Cardiovascular Pathology, Burlington, Vt., Aug. 23-26, 1959. 27. H. I. Russek, *Angiology*, to be published.

MARPLAN® —brand of isocarboxamid

Marplan



ROCHE
LABORATORIES
Division of
Hoffmann-La Roche Inc.
Nutley 10, N. J.



ANCLOTHE MANOR



on the Gulf of Mexico

A MODERN HOSPITAL FOR INTENSIVE PSYCHIATRIC TREATMENT

Owned and Operated by The Anclothe Manor Foundation—A Non-Profit Organization

SAMUEL G. HIBBS, M.D. — PRESIDENT

Dynamically Oriented For: Individual Psychotherapy, Group Psychotherapy, Therapeutic Community, All Somatic Therapies • Large Staff Trained for Team Approach • Supervised Recreational Program

Medical Director

Lorant Foriss, M.D.

Clinical Director

Walter H. Wellborn, Jr., M.D.

Director of Training

Peter J. Spoto, M.D.

Consultants in Psychiatry

Samuel G. Hibbs, M.D.

Samuel Warson, M.D.

Zack Russ, M.D.

Walter Bailey, M.D.

Robert Steele, M.D.

Arturo Gonzalez, M.D.

Roger E. Phillips, M.D.

Melvin Gardner, M.D.

Martha McDonald, M.D.

TARPON SPRINGS, FLORIDA • VICTOR 2-1811

Approved by American Psychiatric Assn., Accredited by Joint Commission on Accreditation of Hospitals
Member National Assn. of Private Psychiatric Hospitals, American Hospital Assn., Florida Hospital Assn.

LOUDEN HALL

Neuro - Psychiatric Service

- SHOCK THERAPY — IN AND OUT PATIENTS
- ELECTRO - ENCEPHALOGRAPHY - IN & OUT SERVICE
- SPECIALIZED TREATMENT FOR ALCOHOLICS
- GENERAL HOSPITAL FACILITIES ON THE GROUNDS

THE BRUNSWICK HOSPITAL CENTER, INC.
AMITYVILLE, L. I., NEW YORK

AMityville 4-0053
New York City Tel. MUrray Hill 3-7012



Founded in 1904

HIGHLAND HOSPITAL, INC.

ASHEVILLE, NORTH CAROLINA
Affiliated with Duke University

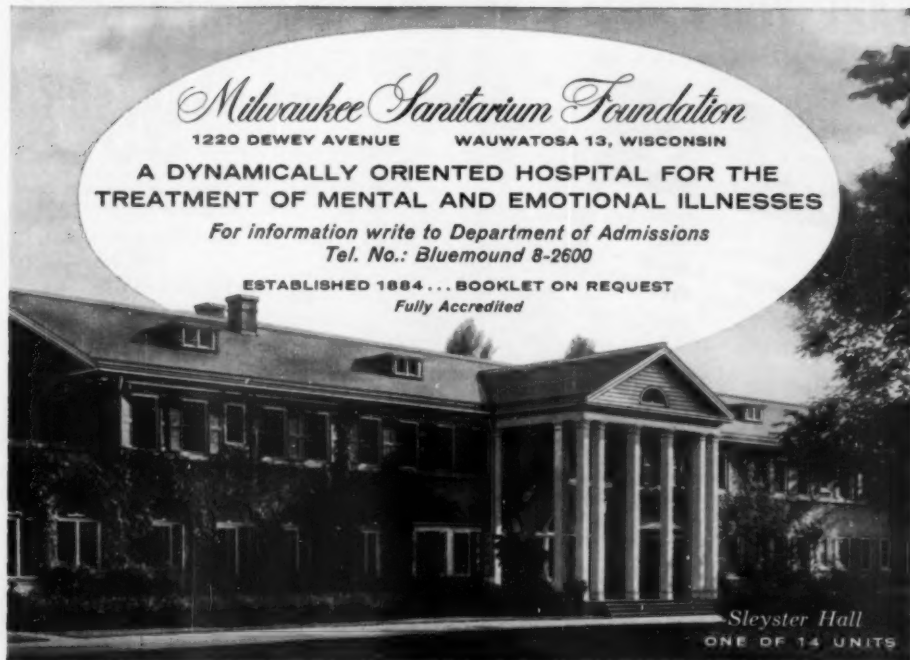
A non-profit psychiatric institution, offering modern diagnostic and treatment procedures—insulin, electroshock, psychotherapy, occupational and recreational therapy—for nervous and mental disorders.

The Hospital is located in a 75-acre park, amid the scenic beauties of the Smoky Mountain Range of Western North Carolina, affording exceptional opportunity for physical and nervous rehabilitation.

The OUT-PATIENT CLINIC offers diagnostic services and therapeutic treatment for selected cases desiring non-resident care.

R. CHARMAN CARROLL, M.D. ROBT. L. CRAIG, M.D.
Medical Director Associate Medical Director

JOHN D. PATTON, M.D.
Clinical Director



Milwaukee Sanitarium Foundation

1220 DEWEY AVENUE WAUWATOSA 13, WISCONSIN

A DYNAMICALLY ORIENTED HOSPITAL FOR THE TREATMENT OF MENTAL AND EMOTIONAL ILLNESSES

For information write to Department of Admissions
Tel. No.: Bluemound 8-2600

ESTABLISHED 1884... BOOKLET ON REQUEST
Fully Accredited

Sleyster Hall
ONE OF 14 UNITS

A New Series Volume and a Treatise . . .

PROGRESS IN NEUROLOGY AND PSYCHIATRY; VOL. 15

Edited by E. A. Spiegel, M.D.

637 pages, \$12.75, Oct. 1960

Over 45 specialists once again combine forces to provide the new 1960 volume of this series, which has become an "institution" in American scientific literature. The pertinent current literature of both basic science and clinical facets of the field is critically digested, exhaustively documented: "... a most valuable reference system in research, theory and progress in the realm of neuropsychiatry."—J. Nerv. & Ment. Dis. A limited number of the previous volumes are still available.

STRUCTURE AND DYNAMICS OF THE HUMAN MIND

By Eduardo Weiss, Ph.D.

496 pages, \$8.75, Oct. 1960

Dr. Weiss provides a methodical exposition on the structure and dynamics of the human mind, integrating his own theories, and their applications, with valuable insights into other leading concepts of ego psychology. Drawing from his collaboration and study with Paul Federn, and his discussions and correspondence with Sigmund Freud, Dr. Weiss elicits a psychodynamic understanding of the processes of the mind, and provides provocative break throughs in applicable knowledge of the personality and its substructures.



GRUNE & STRATTON, INC.
381 Park Avenue South
New York 16, N. Y.

These books are available from
your medical bookseller or
directly from the publisher.

TAPE YOUR NOTES AND REPORTS ANYWHERE

WITH



**ALL TRANSISTOR,
BATTERY-OPERATED
PORTABLE
TAPE RECORDER**

MODELS AS LOW AS \$79.95



MARK III \$99⁹⁵

complete with scotch grain leather case, microphone, built-in speaker, 3" reel of tape and take-up reel

PORTABLE AS A CAMERA
• OPERATES ON
4 FLASHLIGHT BATTERIES

- Weighs just 5 pounds
- Measures 9" x 5" x 4 1/4"
- Records 50 hours on 4 regular flashlight batteries
- Gives up to 1 1/2 hours of play on standard 3" reels of tape

Tape your case notes—while your memory is still fresh—with Phono-Trix, the midget tape recorder that records anything, anywhere. Ideal for group therapy, field notes, etc.—because it needs no wires. Use in office, home or car. Quality-built for years of usefulness and pleasure. Ask for demonstration at your local dealer or write for free booklet.

**VERSATILE
ACCESSORIES
GIVE ADDED FUN
AND USEFULNESS**

Telephone pick-up and amplifier	\$ 8.95
Stethoscope earphones	\$ 8.95
AC adapter	\$19.95

MAIL THIS COUPON TODAY FOR FURTHER INFORMATION ▶

DEPT. JP
MATTHEW STUART & CO., INC.
156 Fifth Avenue, New York 10, N. Y.

GENTLEMEN:

Please send me full details on Phono-Trix and the name of my nearest dealer.

Name _____

Address _____

City _____

Zone _____ State _____

An advanced psychiatric RESEARCH and treatment CLINIC IN SUBURBAN MONTREAL.

A fully accredited, 140 bed
— modern psychiatric hospital
with an integrated
biological and dynamic
psychotherapeutic program.

Set amidst stately grounds,
with planned occupational
and recreational therapy, for
the patient's comfort
and enjoyment.

Affiliated with the University
of Montreal Department
of Psychiatry, for under
and post-graduate training
of residents, psychologists,
social workers and
psychiatric nurses.

Brochures and rates on request.



A small statue of
Our Lady at
University of the
Sainte Catherine.

**INSTITUT
ALBERT PREVOST**

6555 GOUIN BOULEVARD WEST,
MONTREAL 9, CANADA.

CARE and TRAINING for the MENTALLY RETARDED CHILD

The Training School at Vineland provides care and treatment for boys and girls 2 years or older with mental potential of 6 years. Complete professional staff. Electroencephalographic, and neurological examinations, individual psychiatric, psychological, physiological, and speech observations and therapies.

SIX COMPREHENSIVE PROGRAMS:

- Observation and Diagnosis
- Residential Supervision
- Education and Training
- Summer Program
- Custodial Care
- Psychiatric Treatment Center

The educational program aims at maximum development of each child. Training includes self-care; group living; formal classroom education; development of practical habits, attitudes and work skills. Children live in homelike cottages on 1600-acre estate. School, hospital, chapel, swimming pools, lake, working farm. The Training School Research Laboratory is famed for continuous study of causes, prevention and treatment of mental retardation. Established 1888. For information write: Registrar, Box N.

THE TRAINING SCHOOL AT VINELAND, NEW JERSEY

A private, non-profit residential center for the care and treatment of the mentally retarded

Outstanding RONALD Books...

Adolescent Aggression

ALBERT BANDURA, *Stanford University*; and
RICHARD H. WALTERS, *University of Toronto*

A revealing study which examines child-training practices and family interrelationships that may lead to the development of antisocial, aggressive behavior in adolescent boys. Book is based on interviews and projective tests of boys and their parents. "An impressive new resource in our progress toward adequate understanding of these hard-to-live-with youngsters."—Adella Youtz, *Columbia University*. A volume in *A Psychology Series* edited by J. McV. Hunt. 1959. 475 pp.; 72 ill., tables. \$7.50

Clinical Studies in Culture Conflict

Edited by GEORGE SEWARD,
University of Southern California

This practical manual presents case studies by psychiatrists, psychologists, and anthropologists who have had first-hand experience with patients of diversified cultural origins. The subcultures treated include the Negro, the displaced European Jew and Gentile, the American Indian, the Japanese, and a Spanish-speaking group. "Highly readable, well organized, and useful."—*AMERICAN JOURNAL OF PUBLIC HEALTH AND THE NATION'S HEALTH*. By the author of *PSYCHOTHERAPY and CULTURE CONFLICT*. 25 Contributors 1958. 598 pp., 22 ill. \$7.00

Interpersonal Diagnosis of Personality

TIMOTHY LEARY, *Kaiser Foundation Hospital*

A functional theory and methodology for personality evaluation. This pioneering book presents an original personality theory, a series of complex techniques for measuring interpersonal expressions at different levels of personality, and an empirical method for applying the theory and technique in diagnosis and prognosis at the clinical level. "Outstanding."—*CONTEMPORARY PSYCHOLOGY*. 1957. 518 pp.; 120 ill., tables. \$12.00

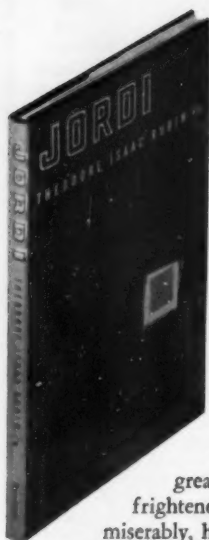
Schizophrenia

Edited by ALFRED AUERBACK,
*University of California
School of Medicine*

Sponsored by the American Psychiatric Association, this important book provides an integrated approach to the treatment of schizophrenia. It reviews Russian developments in neurophysiology; outlines recent biochemical studies on the psychotoxic blood fraction, taraxin; and appraises the narcotic drugs used in the treatment of schizophrenia. 1959. 224 pp., illus. \$5.50

Order your books from:

THE RONALD PRESS COMPANY
15 East 26th St., New York 10



*the story
of a boy
suffering from*

CHILDHOOD SCHIZOPHRENIA

In this unusual new book, Dr. Theodore I. Rubin, M.D., shows the workings of a schizophrenic mind by telling Jordi's story as seen through the boy's own eyes:

"The garbage pail under the sink, with its greasy, gaping, smelly hole frightened him awfully. Shaking miserably, he finally opened the door and walked into the room backward. The woman shook her head and said, 'Why can't you walk like all of us, Jordi?' He couldn't answer — the pail might hear him."

This book is scientifically accurate, but it is not just another technical analysis. It is a moving composite portrait, drawn from years of clinical experience. Therapists and educators will want to read **JORDI** and recommend it to students and parents of disturbed children for the unique insight it gives into the private world of the mentally ill.

(Dr. Rubin is Clinical Instructor of Psychiatry at the State University of N. Y., Downstate Medical Center, College of Medicine. He is also affiliated with the American Institute for Psychoanalysis and the Karen Horney Clinic.)

Read this story today and you will never forget Jordi as long as you live.

paperback text edition	\$1.45
clothbound edition	\$2.95

The Macmillan Company
60 FIFTH AVENUE, NEW YORK 11, N. Y.



Books in Psychiatry

PSYCHOANALYSIS AND THE FAMILY NEUROSIS

By **MARTIN GROTJAHN, M.D.** This notable book presents an analytic view of the neurotic marriage and the neurotic family. It illustrates from the author's own experience techniques of family therapy and the application of analytic principles to the treatment of the family. **\$5.95**

PSYCHOANALYTIC EDUCATION

in the United States

By **BERTRAM D. LEWIN** and **HELEN ROSS.** A comprehensive study of the present state of psychoanalytic training and education as it exists in the institutes and other facilities approved by the American Psychoanalytic Association—indispensable for all concerned with this field. **\$10.00**

FUNDAMENTALS OF CHILD PSYCHIATRY

By **STUART M. FINCH, M.D.** A basic yet comprehensive book on the psychic disorders of children—for doctors, sociologists, psychologists, for everyone who works with children. Excellent case illustrations of all disorders are provided. **\$5.95**

At all bookstores

W. W. NORTON & COMPANY
55 Fifth Avenue, New York 3

THE ANDERSON SCHOOL

Staatsburg-on-Hudson, New York

The Anderson School is a co-educational, residential school, offering general, business, academic, and college entrance courses from grade seven through high school. The school is accredited by the New York State Department of Education, and a majority of its graduates regularly enter college or junior college. It is psychiatrically oriented and is well equipped with the most modern methods and procedures, not only in academic, recreational and modern school environment fields, but particularly in personnel and guidance of each individual student. A full-time psychiatrist and psychologist are in residence. Our work emphasizes a much wider concept of student training and growth than is conceived of in present-day education. Educating the student as a person, adjusting and maturing his personality is a primary aim.

V. V. ANDERSON, M.D., LL.D., *Director*

For further information write to
LEWIS H. GAGE, M.A., *Headmaster*

84 miles from New York City

Telephone: Turner 9-3571

THE BRETT SCHOOL

DINGMANS FERRY, PENNSYLVANIA

In the Footbills of the Poconos

Intensive, highly individualized personal training for a small group of girls over five years of age. Carefully chosen staff. Special modern teaching techniques and program of therapeutic education. Varied handicrafts, cooking, nature study and field trips. Outdoor games, picnics and other activities. Comfortable, homelike atmosphere. Close cooperation with family physician. 70 miles from New York City.



Directors / Frances M. King, formerly *Director of the Seguin School*
Catherine Allen Brett, M.A.

References
Telephone Dingmans Ferry 8138

HALL-BROOKE HOSPITAL

An Active Treatment Hospital, located one hour from New York

*Accredited by: The Central Inspection Board of the American Psychiatric Association
The Joint Commission on Accreditation of Hospitals*

HALL-BROOKE, GREENS FARMS, BOX 31, CONN.

Telephone: WESTPORT CAPITAL 7-1251

George S. Hughes, M.D.

Leo H. Berman, M.D.

Albert M. Moss, M.D.

Louis J. Micheels, M.D.

Robert Isenman, M.D.

John D. Marshall, Jr., M.D.

Edward M. Keelan, M.D.

Peter P. Barbara, Ph.D.

The Children's Service

ROBERT E.
SWITZER, M.D.
DIRECTOR

Outpatient consultation, evaluation and treatment for infants and children of grade school to 18. Residential treatment for elementary grade children with emotional and behavior problems.

The Menninger Clinic

TOPEKA, KANSAS

SANITARIUMS and PRIVATE HOSPITALS

BALDPATE, INC.

Geo. Fleetwood 2-2131

Georgetown, Mass.

Located in the hills of Essex County, 30 miles north of Boston

For the treatment of

psychoneuroses, personality disorders, psychoses, alcoholism and drug addiction.

Definitive psychotherapy, somatic therapies, pharmacotherapy, milieu-therapy under direction of trained occupational and recreational therapists.

HARRY C. SOLOMON, M.D.
Consulting Psychiatrist

GEORGE M. SCHLOMER, M.D.
Medical Director

THE EMORY JOHN BRADY HOSPITAL 401 SOUTHGATE ROAD, COLORADO SPRINGS, COLORADO

MEtrose 4-8828

For the care and treatment of Psychiatric disorders.

Individual and Group Psychotherapy and Somatic Therapies.

Occupational, diversional and outdoor activities.

X-ray, Clinical Laboratory and Electroencephalography.

E. JAMES BRADY, M. D., *Medical Director*
C. F. RICE, *Superintendent*

FRANCIS A. O'DONNELL, M. D.
ROBERT W. DAVIS, M. D.

RICHARD L. CONDE, M. D.
H. C. HOBBS, Ph. D. *Clinical Psychology*

BRIGHAM HALL HOSPITAL CANANDAIGUA, NEW YORK

FOUNDED 1855

Individual psychotherapy, occupational and recreational programs, shock therapy, selected cases of alcoholism and addiction accepted.

Special consideration for Geriatric cases.

HOWARD W. BERG, M.D., *Medical Director*

COMPTON SANITARIUM

820 WEST COMPTON BOULEVARD

NE 6-1185 — NE 1-1148

COMPTON, CALIFORNIA

Member of American Hospital Association and National Association of
Private Psychiatric Hospitals

High Standards of Psychiatric Treatment Serving the Los Angeles Area

Fully Approved by Central Inspection Board of APA

Accredited by Joint Commission on Accreditation of Hospitals

G. CRESWELL BURNS, M.D.
Medical Director

HELEN RISLOW BURNS, M.D.
Assistant Medical Director

FAIR OAKS
Incorporated
SUMMIT, NEW JERSEY

A 70-BED MODERN, PSYCHIATRIC HOSPITAL FOR
INTENSIVE TREATMENT AND MANAGEMENT OF
PROBLEMS IN NEUROPSYCHIATRY

20 MILES FROM NEW YORK CITY

TELEPHONE CRestview 7-0143

OSCAR ROZETT, M. D.
Medical Director

THOMAS P. PROUT, JR.
Administrator

Established

FALKIRK HOSPITAL
CENTRAL VALLEY, N. Y.

1889

TELEPHONE: HIGHLAND MILLS, NEW YORK, WABASH 8-2256

Devoted to the individual care and treatment of psychiatric disorders. An active therapy program and diversified buildings permits classification of patients.

Located 2 miles north of Harriman Exit (No. 16) N. Y. State Thruway
50 miles from New York City

Member N.A.P.P.H.

Fully approved by Central Inspection Board of APA
Accredited by Joint Commission on Accreditation of Hospitals

T. W. NEUMANN, JR., M. D.
Director

CORNELIA B. WILBUR
Clinical Director

THE HAVEN SANITARIUM INC.
ROCHESTER, MICHIGAN

M. O. WOLFE, M.D.
Director of Psychotherapy

RALPH S. GREEN, M.D.
Clinical Director

GRAHAM SHINNICK
Manager

A psychoanalytically oriented hospital for the
treatment of mental and emotional illnesses.

Telephone: OLive 1-9441

Phone:
CHestnut 7-7346

WINDSOR HOSPITAL
A Non Profit Corporation
CHAGRIN FALLS, OHIO

Established
1898

A hospital for the treatment of Psychiatric Disorders. Booklet available on request.

JOHN H. NICHOLS, M. D.
Medical Director

G. PAULINE WELLS, R. N.
Administrative Director

HERBERT A. SIHLER, JR.
Secretary

MEMBER: American Hospital Association - Central Neuropsychiatric Hospital
Association - National Association of Private Psychiatric Hospitals

IMPORTANT

We are in urgent need of obtaining
the January, 1893 issue of the
American Journal of Psychiatry
(Volume 49 #3)

We will pay \$5 each for the
first five copies received in this office.

Send to:

Austin M. Davies, Bus. Mgr.

American Journal of Psychiatry

1270 Avenue of the Americas, Rm. 1817, New York 20, New York

Keep and protect your Journals in this new
VOLUME FILE CASE

**ATTRACTIVE
INEXPENSIVE
SERVICEABLE**

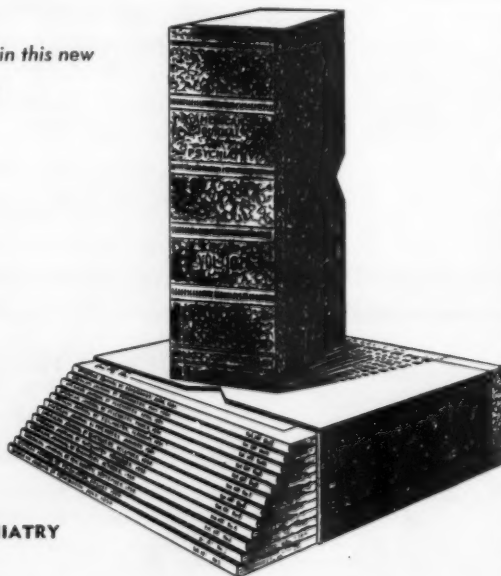
Note new price: \$3.50 each

Please add 25 cents postage for each
file ordered

ORDER DIRECT FROM

AMERICAN JOURNAL OF PSYCHIATRY
1270 Avenue of the Americas
New York 20, N. Y.

WHEN ORDERING PLEASE SPECIFY VOLUME NUMBERS



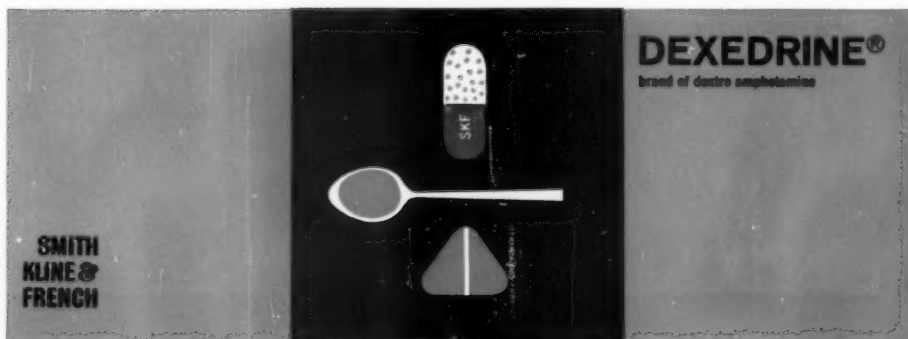
In 12 (60%) of 20 mentally depressed patients, "Vague aches and pains, for which no organic pathology could be found, yielded to ['Dexedrine']."

—Settel, E.: *Internat. Rec. Med.* 170:505.

* * *

Sixteen (76%) of 21 mentally depressed patients manifesting psychomotor retardation responded to 'Dexedrine': "They were better able to do their day's tasks and began each day with diminished fear and insecurity. The psychomotor stimulation they received seemed to dissolve the phlegmatic habitus."

—Ibid.



DEVEREUX SERVES THE ATYPICAL CHILD

SINCE ITS FOUNDING almost fifty years ago, the following types of children have benefited most from the multidisciplinary rehabilitation program at Devereux Schools:

1. Emotionally disturbed children of normal or superior intelligence who have difficulty adjusting to the conventional school setting.
2. Pre-psychotic and psychotic children at all levels of intellectual capacity who can benefit from intensive individual therapy.
3. Children with specific education disabilities, such as aphasia or reading, visual, speech, or auditory handicaps.
4. Children who have brain injuries.
5. Educable mentally retarded children with or without emotional difficulties.

Exhaustive pre-enrollment evaluations of each child determine his placement in one of the twenty-two separate school-units located in Pennsylvania, California, and Texas. Highly individualized academic, commercial, and vocational programs are conducted under skilled supervision.

CLINICAL STAFF

J. Clifford Scott, M.D.
Edwin H. Abrahamsen, M.D.
Aurelio Buonanno, M.D.
Charles M. Campbell, Jr., M.D.
Fred J. Culeman, M.D.
Ruth E. Duffy, M.D.
William F. Haines, M.D.
Robert L. Hunt, M.D.
Richard H. Lambert, M.D.
Leonardo Magran, M.D.
Joseph J. Peters, M.D.
Jacob S. Sherson, M.D.
Albert S. Terzian, M.D.
Walter M. Uhler, M.D.
Tirso L. Vinuesa, M.D.

Lance Wright, M.D.
F. Ellsworth Henry, S.T.D.
Milton Brutton, Ph.D.
William J. Cohen, Ph.D.
Dorothy E. Conrad, Ph.D.
Sidney L. Copel, Ed.D.
Shirley M. Johnson, Ph.D.
Noel Jenkin, Ph.D.
John R. Kleiser, Ph.D.
Murray Levine, Ph.D.
Henry Platt, Ph.D.
Edgar A. Smith, Ed.D.
George Spivack, Ph.D.
Herbert A. Sprigle, Ph.D.
Anne Howe, M.S.

Kenneth E. Evans, B.S.

Psychoanalytic Consultants

G. Henry Katz, M.D.

Herbert H. Herskovitz, M.D.

THE DEVEREUX FOUNDATION

A nonprofit organization

Founded 1912

Devon, Pennsylvania

Santa Barbara, California

Victoria, Texas

SCHOOLS
COMMUNITIES
CAMPS
TRAINING
RESEARCH

HELENA T. DEVEREUX
Administrative Consultant

EDWARD L. FRENCH, Ph.D.
Director

WILLIAM B. LOEB
Treasurer

Professional inquiries for Eastern Schools should be directed to Charles J. Fowler, *Director of Admissions*, Devereux Schools, Devon, Pa.; for Pacific Coast Schools, to Keith A. Seaton, *Registrar*, Devereux Schools in California, Santa Barbara, Calif.; Southwestern residents address Devereux Schools in Texas, Box 336, Victoria, Tex.

